San Dieguito Water District

2020 URBAN WATER Management Plan

FINAL

PREPARED BY:

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JUNE 2021

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2020 Urban Water Management Plan

Final

Prepared By:

June 2021

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Acronyms and Abbreviations

ADU	Accessory Dwelling Unit
AF	Acre-feet
AFY	Acre-feet per year
AWWA	American Water Works Association
Badger Plant	R.E. Badger Filtration Plant
Bay-Delta	Sacramento-San Joaquin Bay Delta
BMP	Best Management Practice
CalWEP	California Water Efficiency Partnership
CCB	Chlorine contact basin
City	City of Encinitas
CRA	Colorado River Aqueduct
CSD	Cardiff Sanitary Division
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
District	San Dieguito Water District
DMM	Demand Management Measure
DWR	California Department of Water Resources
ESD	Encinitas Sanitary Division
ESP	Emergency Storage Project
EWA	Encina Wastewater Authority
EWPCF	Encina Water Pollution Control Facility
FY	Fiscal Year
GHG	Greenhouse gas
GPCD	Gallons per capita per day
HCF	One hundred cubic feet
HOA	Homeowner association
IID	Imperial Irrigation District
IRWM	Integrated Regional Water Management
IRWM Plan	San Diego Integrated Regional Water Management Plan
JADU	Junior Accessory Dwelling Unit
kWh	Kilowatt-hour
LWWD	Leucadia Wastewater District
MAIN	Municipal and Industrial Needs Model
MGD	Million gallons per day
MHM	Multi-Hazard Mitigation Plan for San Diego County
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
NCDC	National Climatic Data Center
NIMS	National Incident Management System
NSDWRC	North San Diego Water Reuse Coalition
OMWD	Olivenhain Municipal Water District
QSA	Quantification Settlement Agreement
PEIR	Program Environmental Impact Report
R30-OL	R30 Overlay Zone

RDMWD	Rincon del Diablo Municipal Water District
SANDAG	San Diego Association of Governments
SB X7-7	Senate Bill X7-7 (Water Conservation Act of 2009)
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric
SEJPA	San Elijo Joint Powers Authority
SEWRF	San Elijo Water Reclamation Facility
SFID	Santa Fe Irrigation District
SWP	State Water Project
TDS	Total dissolved solids
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act
VWD	Vallecitos Water District
WBIC	Weather-based irrigation controllers
WPCF	Water Pollution Control Facility
WRF	Water Reclamation Facility
WSCP	Water Shortage Contingency Plan

Executive Summary

The San Dieguito Water District (District) has prepared this 2020 Urban Water Management Plan (2020 UWMP or Plan) in accordance and compliance with the Urban Water Management Planning Act (UWMP Act). The District's 2020 UWMP serves as the long-term planning document that will help to ensure the District can provide its customers with reliable water supplies through 2045. Pursuant to the requirements of CWC 10630.5, this Executive Summary (ES) provides a lay description of the information needed to provide a general understanding of this Plan and includes a description of the District's reliable water supplies, anticipated challenges, and strategies for managing system reliability risks.

Each of the chapters included in this Plan are summarized in the subsequent sections, with key findings highlighted.

ES-1 Introduction

The District strives to continue to provide a safe and reliable supply of water to its customers within the City of Encinitas (Encinitas). Under the UWMP Act, the District is required to prepare an UWMP once every five years to provide a framework for long-term water planning and to develop a long-term water resource plan to ensure that enough water will be available to meet both current and planned customer water uses, also known as demands. This UWMP discusses the following components as related to the supplier: water demands and system uses, water use baselines and targets (to measure water conservation), water supplies, water supply reliability, water shortage contingency planning, and demand management measures.

ES-2 Plan Preparation

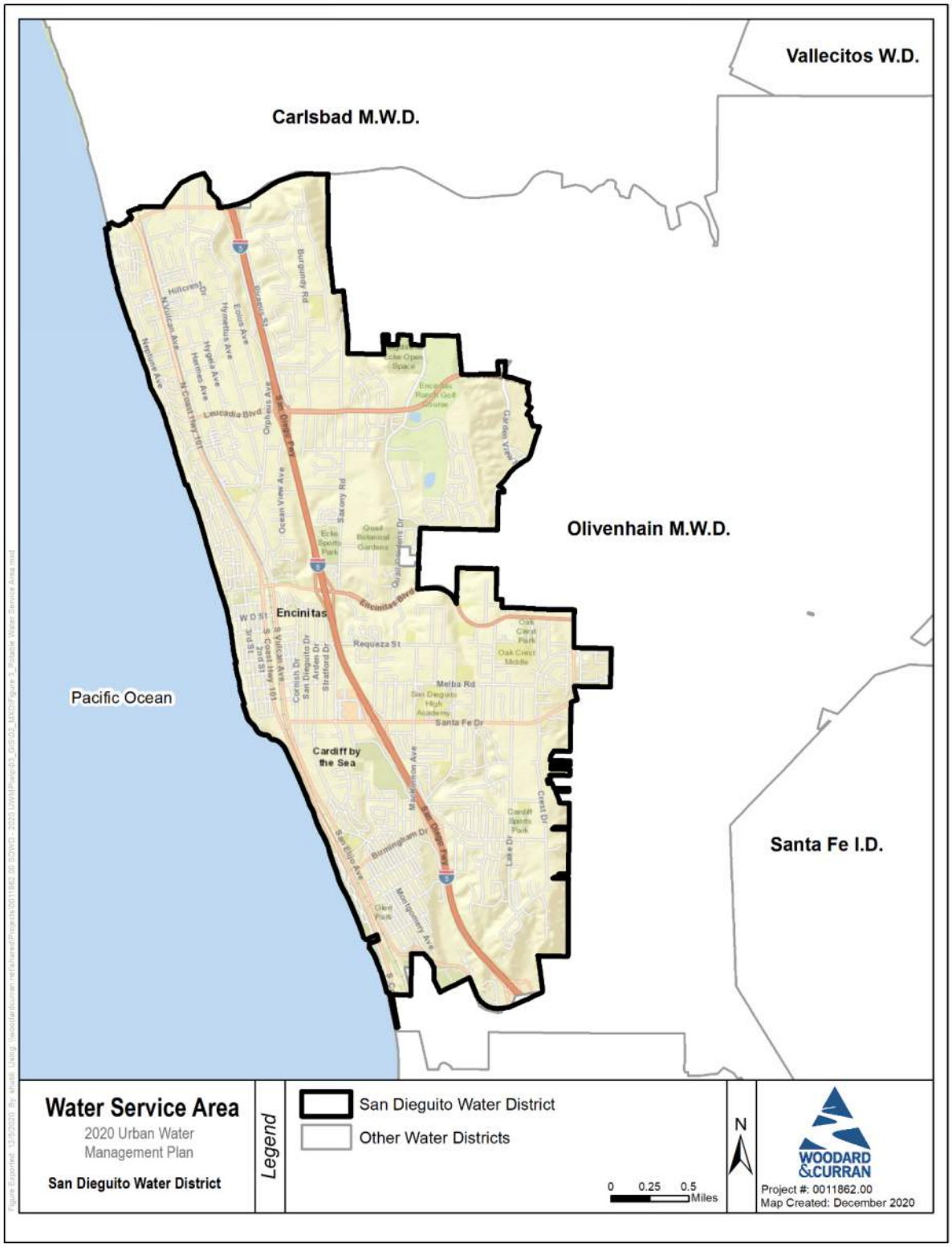
The District is one of 24 member agencies of the San Diego County Water Authority (SDCWA), a water supply wholesaler. The District is known as a retail water supplier because it supplies water directly to customers. Typically, the District purchases and imports at least half of its annual water supply from the SDCWA and more than half in times of drought. Therefore, the District has coordinated this Plan with SDCWA to accurately estimate its future water supplies. The District has also coordinated this Plan with Olivenhain Municipal Water District (OMWD), Vallecitos Water District (VWD), and Rincon del Diablo Municipal Water District (RDMWD) because the District is in a regional alliance with these agencies for the purpose of reporting compliance with State-required water conservation legislation, Senate Bill (SB) X7-7, which required suppliers to reduce their water consumption by 20% by the year 2020.

The District selected to report its data for this UWMP on a fiscal year basis as opposed to a calendar year basis, with fiscal year 2020 being the period between July 1, 2019 and June 30, 2020. The District chose to report water volumes in units of acre-feet (AF). One AF equals about 326,000 gallons, or enough water to cover an acre of land, about the size of a football field, one foot deep.

ES-3 System Description

The District's water service area covers 5,647 acres within the City of Encinitas (as shown in **Figure ES-1**) and, in 2020, provided water to 37,856 customers. Because the District's service area is mostly developed, its population is only projected to increase by approximately 3,400 people, or roughly 9%, over the next 25 years.

Figure ES-1: Water Service Area



These regional growth projections are based on the San Diego Association of Governments (SANDAG) Series 14 Version 17 Regional Growth Forecast, which was developed for its 2019 Federal Regional Transportation Plan and adopted by SANDAG's Board of Directors on October 25, 2019.

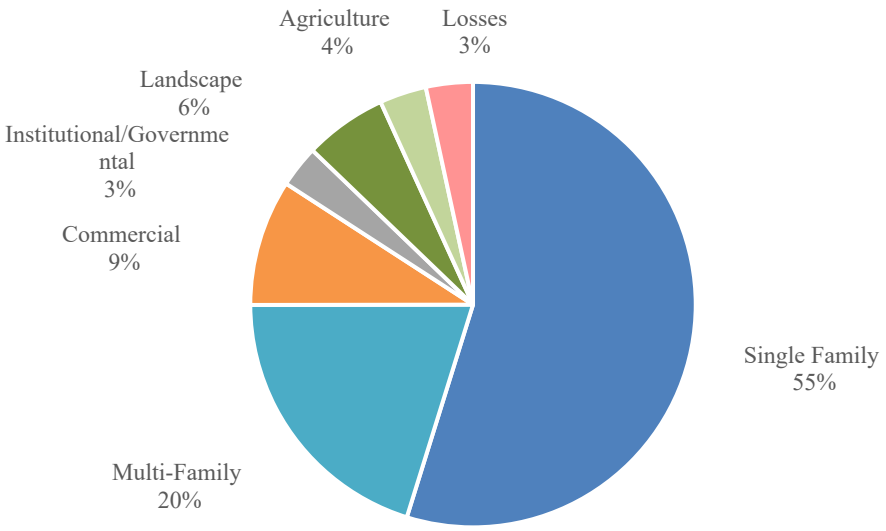
The District is located in an area that experiences a Mediterranean coastal climate, with warm, mild, and dry summers with average temperatures in the 70s and cool and mild winters with average temperatures in the 50s. The region also experiences lower than average rainfall compared to the rest of the country (an average of 10.33 inches per year between 1998-2020) and receives most of its rainfall within a relatively short period of time, both of which can present challenges to water supply planning. Most of the rainfall in the San Diego region occurs during the winter and spring months, creating a wet and a dry season. As a result, the District typically experiences two very different water consumption patterns, one during the wet season and another during the dry season, when outdoor water use significantly increases in response to little or no rainfall.

The District does not have any significant demographic factors that would affect its water management planning; however, the District expects its population density will increase based on future planned development. Single-family residences currently make up approximately 80% of the District's customer base, though Encinitas is focused on expanding affordable housing, which will increase the District's population, as discussed above, and its multi-family residence customer base. To accomplish this goal, Encinitas has developed a new high-density land use zone, known as the R30 Overlay Zone (R30-OL), which can accommodate lower income housing with a density of 25 to 30 units per acre. Approximately 1,300 housing units within the District's service area have been approved to be rezoned to the R30-OL by the Encinitas City Council.

ES-4 System Water Use

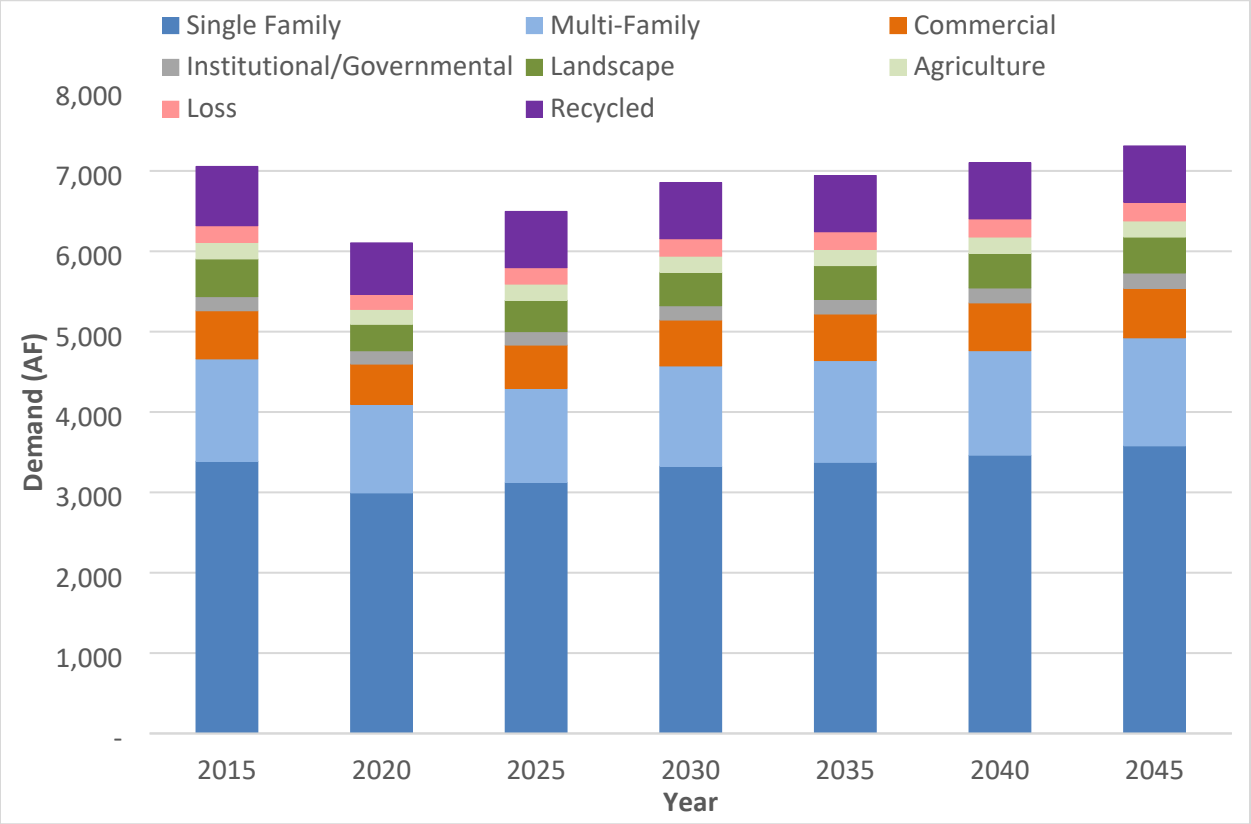
In fiscal year 2020, total potable (safe to drink) water demand in the District's service area was 5,463 AF (not including recycled water), of which 75% was for residential use (single-family and multi-family combined), 6% was for landscape irrigation, and 4% was for agricultural water use, as shown in **Figure ES-2**.

Figure ES-2: Current Water Use by Sector (2020)



The District supplied 642 AF of recycled water in fiscal year 2020, making its total potable and recycled water demand equal to 6,105 AF. By 2045, the District's total potable and recycled water demands are projected to reach 7,311 AF, as shown in **Figure ES-3**, which represents a 20% increase from the fiscal year 2020 demands. Because recycled water demands were conservatively forecasted to remain around 700 AFY through 2045, this projected increase in demands can be attributed to an increase in potable water use. This future projection also considers the impact of planned water conservation measures that typically lead to reductions in water use.

Figure ES-3: Total Historical and Projected Demand



By comparison, when the local economy was growing in fiscal year 2000, water demand in the District's service area reached 8,168 AF. As water supplies became limited during drought conditions between 2012 and 2017, water use in the District substantially decreased as a result of water conservation and demand reduction measures.

Based on the District's 2018 to 2020 monthly water use data, minimum and maximum monthly water use varies by approximately 35% of the average monthly water use, meaning water use varies by more than 75% seasonally within the District. The lowest use occurs during the spring, especially the month of March, and the highest use occurs over the summer months into early fall, particularly August through October.

ES-5 SB X7-7 Baselines, Targets, and 2020 Compliance

The Water Conservation Act of 2009, known as SB X7-7, requires the District to reduce its per person (or per capita) water use by at least 20% by the year 2020. Water suppliers that do not

achieve the required water use reductions are potentially ineligible to receive State funding. As a result, SB X7-7 has been a huge driver of suppliers' efforts to establish, promote, and prioritize water conservation programs and demand management measures to reduce water use. Suppliers measure compliance with SB X7-7 by calculating its baseline water use and comparing it to an established water use target.

The District met its required water use reduction and is in compliance with SB X7-7. The District's actual water use in fiscal year 2020 was 129 gallons per capita per day (gpcd), which is approximately 15% less than its 2020 target water use of 151 gpcd. As discussed in **Section ES-2**, the District also reports its compliance with SB X7-7 as part of a regional alliance by calculating a weighted average per capita water use based on each supplier's target water use and 2020 population. The weighted average water use calculated for the regional alliance was 150 gpcd, which is also less than the regional alliance 2020 water use target of 204 gpcd and therefore the regional alliance is also in compliance with SB X7-7.

ES-6 System Supplies

The District's water supply portfolio includes imported water purchased from the SDCWA, local surface water from Lake Hodges, and recycled water purchased from the San Elijo Joint Powers Authority (JPA).

In fiscal year 2020, the District supplied 3,127 AF of imported water through purchases from the SDCWA. The SDCWA purchases water from the Metropolitan Water District of Southern California (MWD), sourced from both the Colorado River Aqueduct (CRA) and the State Water Project (SWP). SDCWA also purchases desalinated seawater, which is treated to drinking water standards at the Claude "Bud" Lewis Carlsbad Desalination Plant (Carlsbad Desal Plant).

The District shares rights to local surface water that flows into Lake Hodges with the City of San Diego and the Santa Fe Irrigation District through a water rights agreement. In fiscal year 2020, the District supplied 2,555 AF of local surface water from Lake Hodges. The District normally has rights to 2,434 AFY of storage capacity within Lake Hodges; however, an ongoing dam repair project at Lake Hodges has temporarily reduced its allocation to 2,135 AFY, which is expected to last until the year 2030.

In fiscal year 2020, the District purchased 642 AF of recycled water to supply to its customers. Currently, the District provides recycled water to the Encinitas Ranch Golf Course, landscaped traffic medians, homeowner association (HOA) common areas, and a number of parks within Encinitas.

Between 2020 and 2045, total supplies are projected to increase by 815 AFY, or 12.5%, from 6,496 AFY to 7,311 AFY.

ES-7 Water Supply Reliability

This Plan presents the District's water reliability assessments from 2025 through 2045. Consistent with the UWMP Act requirements, each assessment compares total projected water supply to total projected water demands in five-year increments over the next 20 years under the following scenarios:

- Normal water year
- Single dry-year

- Multiple dry-year

The SDCWA's Draft 2020 UWMP reports that it anticipates imported and stored water would be sufficient to meet future demands of its member agencies under the single dry year and multiple dry year assessment when accounting for changes in local supply availability and regional demands. Therefore, the District could purchase additional supplies from SDCWA to supplement the anticipated reduction in local surface water supplies. During drought conditions, the District expects supplies from Lake Hodges to decrease. Lake Hodges is especially vulnerable to drought conditions because the amount of available water is largely driven by precipitation and runoff. Unlike the District's Lake Hodges surface water supply, recycled water is considered "drought-proof" because it is typically not vulnerable to drought conditions. The District's recycled water supplier, the SEJPA, also has the capacity to increase recycled water deliveries to the District should recycled water demands increase during drought conditions. The reliability assessment results concluded that projected available supplies would meet anticipated demands, demonstrating that the District's water supply mix is reliable and drought resilient.

Pursuant to a new requirement, a water supplier must also include in its 2020 UWMP a drought risk assessment (DRA) to compare supplies and demands over a five-year consecutive dry period, or extended drought. Based on SDCWA's drought assessment presented in its 2020 UWMP, which showed sufficient supplies to meet member agency demands, the District's DRA, evaluated for the years 2021 – 2025, also assumed that the District could purchase additional supplies from SDCWA to supplement reductions and concluded that projected available supplies would meet anticipated demands, demonstrating resiliency.

ES-8 Water Shortage Contingency Planning

The Water Shortage Contingency Planning chapter of this Plan discusses potential actions the District could take to address supply shortages due to a catastrophe, drought, or other supply disruption. It also highlights elements of the District's Water Shortage Contingency Plan (WSCP), including specific actions to be taken in response to various water shortage levels and the process of performing an annual water supply and demand assessment (Annual Assessment) to evaluate short-term reliability for the upcoming fiscal year. If the Annual Assessment anticipates that demands will exceed available supply, the District's Board will vote to determine the appropriate water shortage level and associated actions necessary to reduce demand to ensure adequate supply.

The WSCP (Water Supply Shortage Response Program, Article 30) serves as the District's guiding document to respond to water shortages and includes information on the process to prepare the Annual Assessment; the water shortage levels, their response actions, and the expected water savings; and penalties for violating Article 30. The District defines and activates its water shortage response levels in accordance with the levels defined and activated by the SDCWA.

Pursuant to new 2018 legislation that was adopted in response to the recent severe drought, water suppliers must address several new requirements in their WSCPs, one of which includes updating from four (4) to six (6) standard water shortage response levels (progressive ranges of 10%, 20%, 30%, 40%, 50%, and greater than 50% shortage). The District's Article 30 was adopted on May 19, 2021 to comply with the new requirements and replaced the District's Article 29.

ES-9 Demand Management Measures

The Water Code defines "Demand Management" as water conservation measures, programs, and incentives that prevent the waste of water and promote reasonable and efficient use and reuse of available supplies. Demand management measures (DMMs) are developed and implemented for the purpose of reducing overall demand on a water supplier. Demand reductions can be achieved using several methods including water conservation, which is a relatively low-cost way to supplement water supply that is typically easy to implement. Water conservation is a key component in Southern California's strategy to meet water demand, and the District has demonstrated its commitment to water use efficiency and conservation by proactively supporting District, SDCWA, and MWD water conservation programs since the early 1990s. Water conservation programs implemented by the District, either on its own or in combination with SDCWA and MWD, include:

- Water conservation rebates and incentives
- Commercial and residential conservation audits and surveys
- Professional and residential workshops
- Customer and student outreach and education
- Large landscape budgets (i.e., Turf Replacement Program)
- Water conservation contents (i.e., 4th grade school poster content)

The District also maintains a Water Sustainability Plan (WSP), last updated in June of 2016, to document its current and future efforts to achieve water sustainability. As explained in the WSP, water conservation measures have evolved over time. In the 1990s, DMMs were focused on reducing indoor water use, mainly through replacement of low-efficiency plumbing fixtures (e.g., toilets, showerheads) with more efficient, low-flow fixtures. Once significant reductions in indoor water use were realized as a result of fixture replacement, new measures focused on reducing outdoor water use were implemented and remain the primary focus of today's DMMs.

Additionally, adoption of SB X7-7 in 2009, as discussed in **Section ES-5**, has promoted DMMs for the purpose of reducing demands to meet the required water use reductions. The District's participation in these water conservation programs aided in the achievement of its targeted reduction and compliance with SB X7-7.

ES-10 Plan Adoption, Submittal, and Implementation

The District held a public hearing on May 19, 2021 to receive public comments on its 2020 UWMP, WSCP, and Addendum to the 2015 UWMP on Delta Reliance. Because the public hearing may take place at the same meeting as the adoption hearing, the District also adopted its 2020 UWMP, WSCP, and Addendum to the 2015 UWMP Delta Reliance on May 19, 2021. The District notified the appropriate agencies, cities, and counties on February 18, 2021, at least 60 days prior to the public hearing. The District also published notice of the public hearing in a local newspaper of general circulation on April 16, 2021 and April 23, 2021, pursuant to Government Code 6066 requirements. The District submitted its 2020 UWMP and WSCP to DWR electronically through DWR's online submittal tool within 30 days of adoption by June 18, 2021.

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Chapter 1 Introduction and Overview

This Chapter presents an introductory discussion of the San Dieguito Water District's (District) Urban Water Management Plan (UWMP) and presents background information on the specifics of the California Water Code (CWC) and the requirements of the California Urban Water Management Planning Act of 1983 (UWMP Act).

1.1 Background and Purpose

The District provides potable and recycled water to approximately 38,000 people in the communities of Leucadia, Old Encinitas, Cardiff, and portions of New Encinitas. The District is a subsidiary district of the City of Encinitas (City), and the City Council serves as the District's Board of Directors.

The District is bordered on the north by the Carlsbad Municipal Water District, on the east by the Olivenhain Municipal Water District and on the south by the Santa Fe Irrigation District. These boundaries, and the District's service area, are shown in **Figure 1-1**.

The District recognizes that water planning has become increasingly important as the region has recently experienced an extended drought where water resources became limited. Additionally, the anticipated impacts of climate change include increased variability in water resource availability and increased drought frequency and intensity. As such, the District has prepared this 2020 UWMP in accordance with the UWMP Act.

1.2 Urban Water Management Planning and the California Water Code

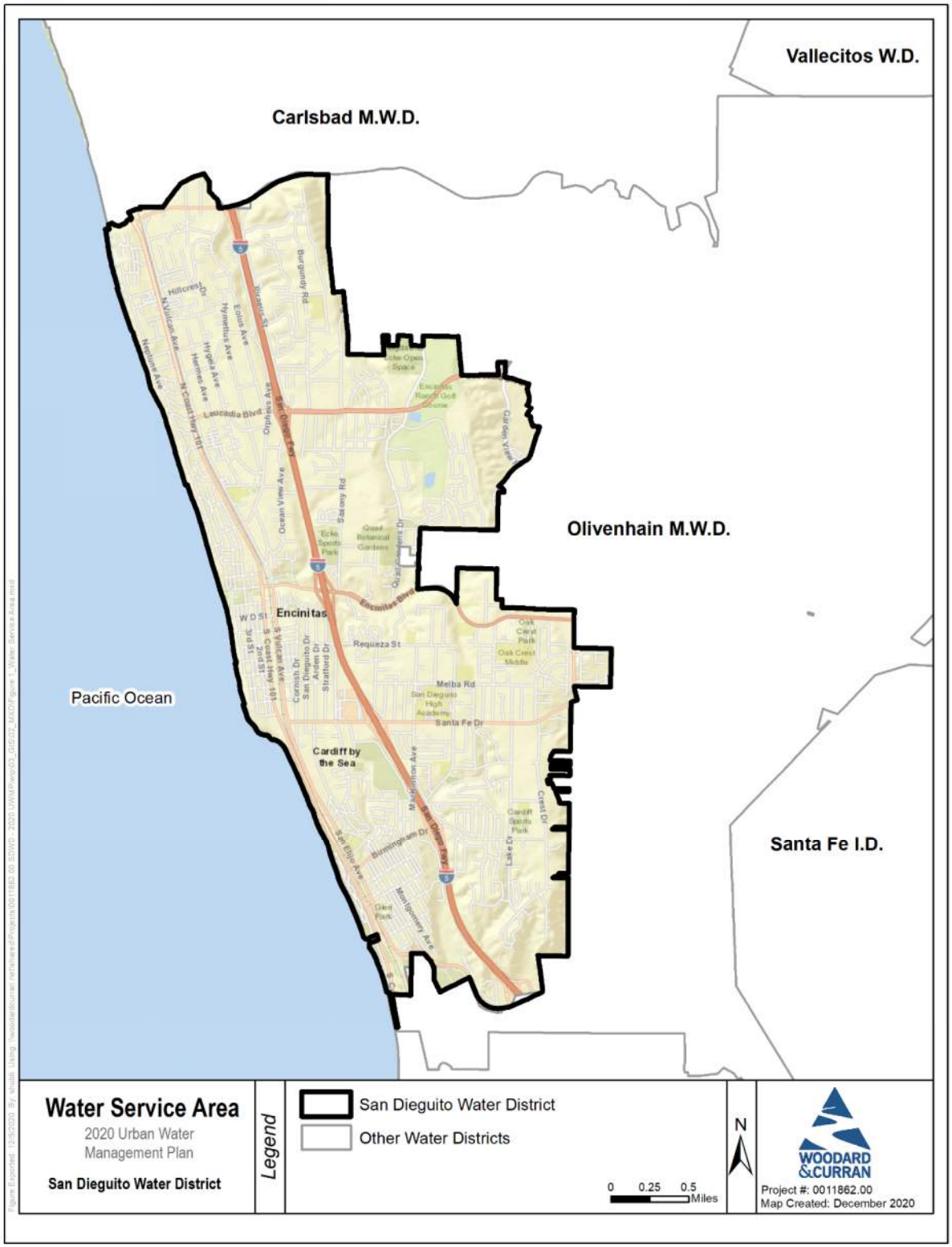
Recognizing that the water resources of the State are limited, in 1983 the California legislature enacted the UWMP Act (Water Code Sections 10610 - 10656). The UWMP Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet (AF) of water annually, shall prepare and adopt an UWMP. The UWMP Act, as revised by the legislature, requires that each urban water supplier update and adopt its plan at least once every five years on or before July 1, in years ending with one and six. A water supplier must complete an UWMP to be eligible for the water management grants or loan and drought assistance administered by the Department of Water Resources (DWR). A properly prepared and presented UWMP facilitates the development of and improves the quality of subsequent Water Supply Assessment and Verification Reports.

1.2.1 Urban Water Management Planning Act of 1983

The UWMP Act requires water agencies, such as the District, to prepare an UWMP to provide a framework for long-term water planning and to develop a long-term water resource plan to ensure adequate water supply for both existing and future demands. An UWMP should discuss the following components as related to the supplier:

- Water demands and system uses
- Water use baselines and targets
- Water supplies
- Water supply reliability
- Water shortage contingency planning
- Demand management measures

Figure 1-1: Water Service Area



1.2.2 Applicable Changes to the Water Code since 2015 UWMPs

There are a number of changes that have been made to the CWC since the development and submittal of the 2015 UWMPs occurred. In 2018, the State adopted new water conservation legislation Senate Bill (SB) 606 and Assembly Bill (AB) 1668. SB 606 and AB 1668 lay out a new long-term water conservation framework that includes both urban and agricultural sectors.

The following requirements are new for the 2020 UWMP:

- Lay description of key findings (refer to the **Executive Summary** and **Section 1.6**)
- Inclusion of an adopted water shortage contingency plan that will also serve as a stand-alone document that can be updated more frequently than once every five years (refer to **Chapter 8 – Water Shortage Contingency Plan**)
- Consideration of seismic risks to the District's water system facilities (refer to **Section 8.3**)
- Coordination of groundwater supplies with Groundwater Sustainability Plans (not applicable to the District)
- Submittal of the annual water supply and demand assessment (Annual Assessment) to DWR and inclusion in the UWMP of the assessment methodologies used to compare available water supplies to projected demands (refer to **Chapter 8 – Water Shortage Contingency Plan** and **Appendix J**)
- Planning for a multiple dry year period that lasts for five consecutive years (refer to **Chapter 7 – Water Supply Reliability**)
- Reporting of energy intensity associated with the District's sources of water (refer to **Chapter 6 – System Supplies**)

This 2020 UWMP also describes ways in which SDWD can meet future anticipated urban water use objectives that the California Water Code now requires suppliers to develop by 2023 and achieve by 2027.

1.2.3 Water Conservation Act of 2009 (SB X7-7)

Starting in 2016, the State began requiring urban water suppliers to comply with the water conservation requirements of SB X7-7 in order to be eligible for State water grants or loans. The specific requirements of, and the District's compliance with, the Water Conservation Act are addressed in **Chapter 5 – Baselines and Targets**.

1.3 Urban Water Management Plans in Relation to Other Efforts

The California Department of Water Resources (DWR) recommends that other planning efforts and associated planning documents be incorporated into the 2020 UWMPs, as UWMPs are greatly enhanced with the inclusion of other such planning efforts. The following documents were used in the preparation of the District's 2020 UWMP:

- San Elijo Joint Powers Authority Potable Reuse Feasibility Study, March 2016
- North San Diego County Regional Recycled Water Project Regional Recycled Water Facilities Plan, May 2012 (revised February 2013)
- San Dieguito Water District 2015 UWMP, July 2016

- City of Encinitas Water System Master Plan, June 2010
- Leucadia Wastewater District Asset Management Plan, May 2018
- Cardiff and Encinitas Sewer Master Plan Update, April 2011
- San Diego County Water Authority Draft Urban Water Management Plan, March 2021
- San Dieguito Water District Water Sustainability Plan, June 2016
- City of Encinitas Climate Action Plan, January 2018
- City of Encinitas 2021-2029 General Plan Housing Element, April 2021
- Encina Wastewater Authority Water Reuse Feasibility Study, July 2018
- Encina Wastewater Authority Recycled Water Expansion Plant Development Study, 2019
- San Diego IRWM Plan Update, May 2019
- San Elijo Joint Powers Authority Recycled Water Optimization and Expansion Study, 2005
- San Diego County Multi-Jurisdictional Hazard Mitigation Plan, 2018

1.4 Recommended UWMP Organization

The DWR has released the 2020 Urban Water Management Plans Guidebook for Urban Water Suppliers (Guidebook), dated March 2021, to assist urban water suppliers with meeting the requirements of the UWMP Act.

While it is not required that urban water suppliers follow the Guidebook in the preparation of their 2020 UWMPs, it is recommended by the DWR. The DWR groups the UWMP Act requirements by topic and presents them in a suggested order that may be considered in the development of an UWMP. While the UWMP format outlined in the Guidebook is not required, the use of DWR's standard submittal tables is required.

The District's 2020 UWMP follows the Guidebook outline and uses the Guidebook's suggested Chapters as follows:

- Chapter 1 - Introduction and Overview
- Chapter 2 - Plan Preparation
- Chapter 3 - System Description
- Chapter 4 - System Water Use
- Chapter 5 - SB X7-7 Baselines, Targets, and 2020 Compliance
- Chapter 6 - System Supplies
- Chapter 7 - Water Supply Reliability
- Chapter 8 - Water Shortage Contingency Planning
- Chapter 9 - Demand Management Measures
- Chapter 10 - Plan Adoption, Submittal, and Implementation

1.5 UWMPs and Grant or Loan Eligibility

CWC 10608.56

> *(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.*
>
> *(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.*
>
> *(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.*
>
> *(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).*

CWC 10656

> *An urban water supplier is not eligible for a water grant or loan awarded or administered by the state unless the urban water supplier complies with this part.*

CCR Section 596.1

> *(b)(2) "disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.*

For an urban water supplier to be eligible for a water management grant or loan administered by the DWR, they must have a current UWMP on file that has met the requirements of the UWMP Act. An UWMP may also be required for other State funding programs, depending on the specific requirements of each funding program.

In addition, changes to California law required that, beginning in 2016, urban retail water suppliers must comply with water conservation requirements established by the Water Conservation Act of 2009 (SB X7-7) to be eligible for State water grants or loans.

For 2020 UWMPs, this means that a retail water agency must meet its 2020 Urban Water Use Target (presented in **Chapter 5 – SB X7-7 Baselines, Targets, and 2020 Compliance**) and report compliance in the 2020 UWMP. As discussed in **Chapter 5**, the District has met its 2020 Target and has complied with the SB X7-7 requirements.

1.6 Lay Description of 2020 UWMP

An overall lay description of the 2020 UWMP, including information related to water service reliability, potential issues, and strategies for managing reliability risks, is provided as the executive summary of this 2020 UWMP.

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Chapter 2 Plan Preparation

This Chapter contains information related to the preparation of the District's 2020 UWMP and includes information related to both individual and regional compliance, regional coordination, fiscal or calendar year units of measure for reporting, and general coordination and outreach.

This Chapter includes the following sections:

- Basis for Preparing a Plan
- Regional Planning
- Individual or Regional Planning and Compliance
- Fiscal or Calendar Year and Units of Measure
- Coordination and Outreach

2.1 Basis for Preparing a Plan

CWC 10617

> *"Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems.*

CWC 10620

> *Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.*

CWC 10621

> *(a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.*

In accordance with the CWC, urban water suppliers with 3,000 or more customers or that supply more than 3,000 acre-feet per year of water must prepare an UWMP and update its plan once every five years. CWC 10621(d) requires submittal of the 2020 UWMP to the DWR by July 1, 2021.

As the District currently serves approximately 38,000 people through roughly 7.5 miles of water pipelines and supplies over 6,000 acre-feet per year (AFY) of potable water, they are required to prepare a 2020 UWMP that meets the requirements of the UWMP Act.

We wish to acknowledge the contribution of the following individuals for their participation, insight, and direction in the preparation of this 2020 UWMP: Isam Hireish, Assistant General Manager; Blair Knoll, District Senior Civil Engineer; Christina Olson, District Associate Engineer; and Raul Gonzalez, District Operations Manager.

2.1.1 Public Water Systems

CWC 10644

> *(a)(2) The plan, or amendments to the plan, submitted to the department … shall include any standardized forms, tables, or displays specified by the department.*

California Health and Safety Code 116275

> *(h) "Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*

Public Water Systems (PWS) are defined as systems that provide drinking water for human consumption. The District is a PWS, which is regulated by the State Water Resources Control Board, Division of Drinking Water. The District's Public Water System Number is CA3710021.

Table 2-1: Public Water System Information

DWR Table 2-1: Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020
CA3710021	SAN DIEGUITO WD	11,913	5,277
	TOTAL	11,913	5,277
NOTES: PWS Number and Name from the State Electronic Annual Reporting System			

The District submits Electronic Annual Reports (EARs) to the State's Electronic Annual Reporting System each year. The 2019 EAR is provided as **Appendix A**.

2.2 Regional Planning

Developing an UWMP as a cooperative effort can have a number of benefits. As a member of the San Diego County Water Authority (SDWCA), the District's water use targets that were developed as part of the 2015 UWMP will support the SDCWA's 2020 regional UWMP planning effort.

Additionally, the District has decided to participate in a regional alliance to address the requirements of SB X7-7, which is discussed in **Section 2.3.2**.

2.3 Individual or Regional Planning and Compliance

Regional Planning can provide many benefits such as reduced preparation costs and regional cross jurisdictional integrated water management. Agencies may choose from the following reporting methods:

- Individual Reporting
- Regional Reporting
- Regional Urban Water Management Plan (RUMP)
- Regional Alliance

The District has opted to pursue Individual Reporting for its 2020 UWMP; however, as discussed in **Section 2.2**, the District is part of a regional alliance and will also report compliance with water use targets on a regional basis to address the requirements of SB X7-7.

2.3.1 Regional UWMP

CWC 10620

> *(d)(1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.*

As one of 24 member agencies of the SDCWA, the District is collaborating with SDCWA to support the information presented in SDCWA's 2020 UWMP; however, the District has opted to pursue Individual Reporting for their 2020 UWMP, meaning that the District will report solely on its own service area and will develop an UWMP that meets all the requirements of the CWC. As part of its 2020 UWMP, the District has notified and coordinated with the appropriate regional agencies and constituents.

2.3.2 Regional Alliance

CWC 10608.20

> *(a)(1) …Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis as provided in subdivision (a) of Section 10608.28…*

CWC 10608.28

> *(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement by any of the following:*
>
> *(1) Through an urban wholesale water supplier.*
>
> *(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).*
>
> *(3) Through a regional water management group as defined in Section 10537.*
>
> *(4) By an integrated regional water management funding area.*
>
> *(5) By hydrologic region.*
>
> *(6) Through other appropriate geographic scales for which computation methods have been developed by the department.*
>
> *(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.*

Pursuant to the Water Conservation Bill of 2009 (SB X7-7), each urban retail water supplier was required to develop an urban water use target for 2020 and an interim urban water use target for 2015. Notably, SB X7-7 authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual agency basis or pursuant to a regional alliance as provided in CWC 10608.28(a). The DWR Guidebook and the DWR Methodologies provide guidance to urban retail water suppliers for purposes of forming and carrying out a regional alliance in accordance with CWC 10608.28(a) and the related provisions of SB X7-7. The DWR Guidebook and the DWR Methodologies provide that urban retail water suppliers are eligible to form a regional alliance in accordance with CWC 10608.28(a) if the suppliers meet at least one of several specified criteria, such as (1) the suppliers are recipients of water from a common

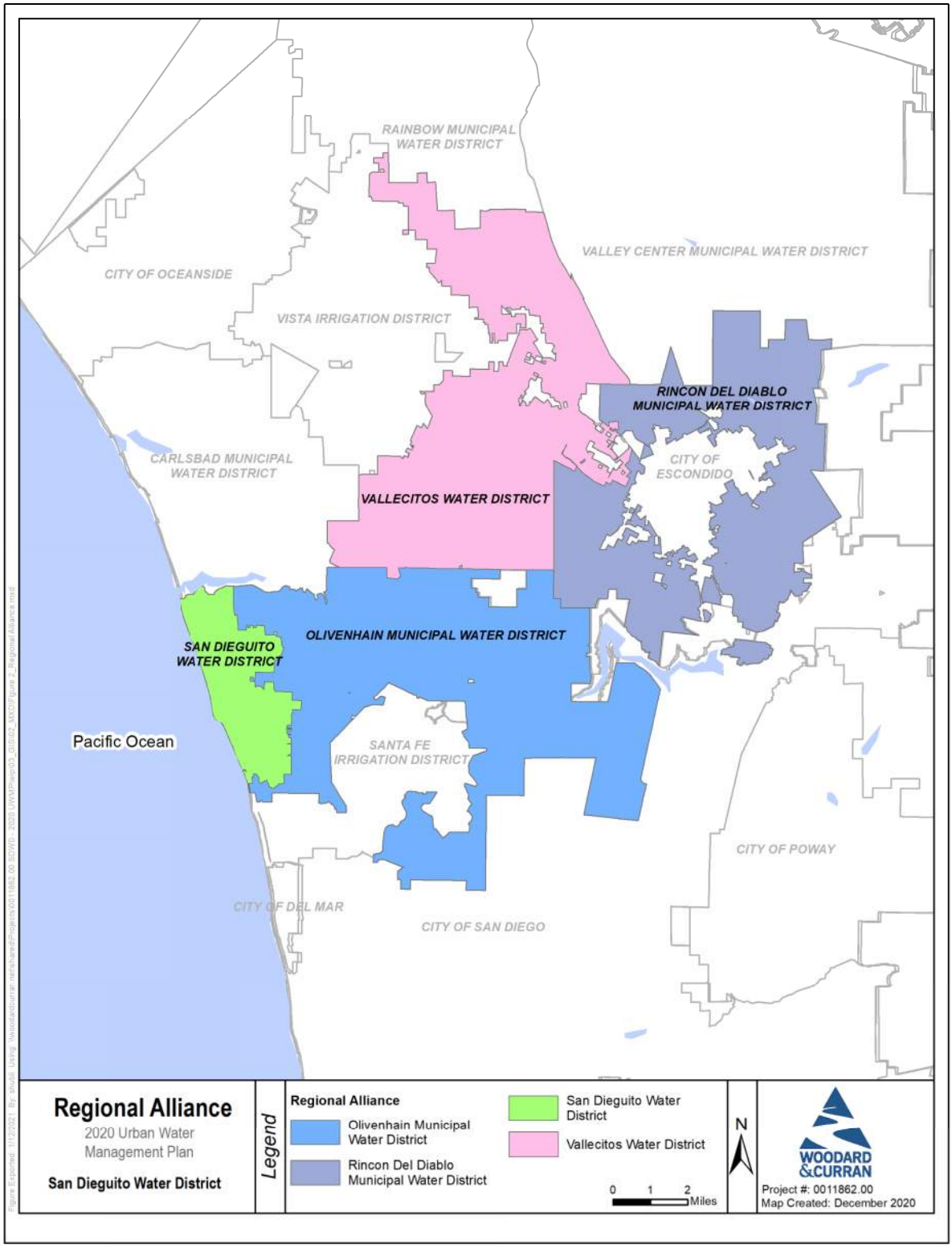
wholesale water supplier, or (2) the suppliers are located within the same hydrologic region, which for purposes of a regional alliance refers to the 10 hydrologic regions as shown in the California Water Plan. The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance as described above and depicted in **Table 2-2** and **Figure 2-1**. All of these agencies are recipients of water from a common wholesale water supplier, in this case the SDCWA, and are located within the South Coast Hydrologic Region as shown in the California Water Plan.

The members have entered a cooperative agreement to establish and carry out a regional alliance and they have jointly notified DWR of the formation of their regional alliance. A copy of the Cooperative Agreement is included as **Appendix B**. In accordance with the DWR Guidebook and DWR Methodologies, the members prepared an urban water use target for 2020 and an interim urban water use target for 2015 for the region and within each of the other member's individual UWMPs. Furthermore, each member of the regional alliance has developed its own set of interim and urban water use targets, along with other supporting data and determinations, all of which is included in each member's individual UWMP. The District's individual interim and urban water use targets as well as targets set for other agencies within the regional alliance are presented in **Chapter 5 – Baselines, Targets, and 2020 Compliance**.

Table 2-2: Plan Information

DWR Table 2-2: Plan Identification			
	Type of Plan		Name of RUWMP or Regional Alliance
☑	Individual UWMP		
	☐	Water Supplier is also a member of a RUWMP	
	☑	Water Supplier is also a member of a Regional Alliance	Olivenhain Regional Alliance
	Regional Urban Water Management Plan (RUWMP)		
NOTES: The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance.			

Figure 2-1: Regional Alliance



2.4 Fiscal or Calendar Year and Units of Measure

CWC 1608.20

(a)(1) Urban retail water suppliers…may determine the targets on a fiscal year or calendar year basis.

The District is a water supply retailer that purchases water from the SDCWA. The data and units of measure included in the District's 2020 UWMP are discussed below and presented in **Table 2-3**.

2.4.1 Fiscal or Calendar Year

A water supplier has the option of reporting on a fiscal year or a calendar year basis, but it must be stated in the UWMP and remain consistent throughout the Plan. The District has selected fiscal year for all reporting in their 2020 UWMP.

2.4.2 Reporting Complete 2020 Data

2020 UWMPs are required to include water use and planning data for the entire year, either calendar or fiscal. In this case, the District's 2020 UWMP includes fiscal year data.

2.4.3 Units of Measure

The District is reporting water supply and use data based upon its 2020 fiscal year, beginning on July 1, 2019, and ending on June 30, 2020.

Units of measure in the 2020 UWMP, except as required by SB X7-7 in **Chapter 5 - Baselines, Targets, and 2020 Compliance**, are in Acre Feet (AF).

Table 2-3: Agency Identification

DWR Table 2-3: Agency Identification	
Type of Agency	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year	
☐	UWMP Tables Are in Calendar Years
☑	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
07/01	
Units of Measure Used in UWMP	
Unit	AF
NOTES: Fiscal year reporting from 7/1/2019 to 6/30/2020. Units of measure are in acre-feet.	

2.5 Coordination and Outreach

CWC 10631

> *(j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).*

2.5.1 Wholesale and Retail Coordination

Retail agencies, such as the District, that receive water supplies from one or more wholesalers are required to provide their wholesaler(s) with the retail agency's projected water demand from that source, in five-year increments for 20 years, or as far as data is available.

As a member agency of the SDCWA, the District provided projected water demand information, as required by the CWC. The District's demands on SDCWA are presented in **Chapter 3 – System Water Use**.

Table 2-4: Water Supplier Coordination

DWR Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name
San Diego County Water Authority (SDCWA)
NOTES:

2.5.2 Coordination with Other Agencies and the Community

CWC 10620

> *(d)(3) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.*

CWC 10642

> *Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan…*

The District encouraged active involvement of diverse social, cultural, and economic elements of the population within its service area by posting a copy of its draft plan on its website and holding a public hearing to accept comments from the community. The District has also coordinated its planning efforts for this 2020 UWMP with the agencies listed in **Table 2-5**.

Table 2-5: Coordination with Appropriate Agencies

	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt
San Diego County Water Authority				X	X	X
County of San Diego					X	X
City of Encinitas	X			X	X	X
San Elijo Joint Powers Authority				X		X
Santa Fe Irrigation District	X			X		X
Olivenhain Municipal Water District	X					X
Vallecitos Water District	X			X		X
Rincon Del Diablo Municipal Water District	X					X

2.5.3 Notice to Cities and Counties

CWC 10621 (b)

> *Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

All cities or counties within which the District provides water supplies were notified at least 60 days prior to the public hearing. Similar notification, as presented in **Appendix C**, was also provided to the SDCWA, County of San Diego, and City of Encinitas. The District will provide a copy of the adopted Plan to each city or county within the District's boundary no later than 60 days after its submission to the Department of Water Resources (DWR). A full list of the entities that received a 60-day notice and notice of public hearing is noted in **Table 10-1** (refer to **Chapter 10 Plan Adoption, Submittal, and Implementation**).

Chapter 3 System Description

This Chapter contains information related to the District's water system and service area and includes the following sections:

- General Description
- Service Area Boundary Map
- Service Area Climate
- Service Area Population and Characteristics

3.1 General Description

CWC Section 10631

(a) Describe the service area of the supplier.

The San Dieguito Water District (District) was formed in 1922 by a local developer to provide water for approximately 1,000 acres of land in the community of Leucadia. Arrangements were later made to purchase water from the Santa Fe Land Company at Lake Hodges to supply the communities of Encinitas, Cardiff-by-the-Sea, and Leucadia. Although the District was originally established to provide irrigation water to surrounding farms, ranches, and fruit groves, the area eventually developed into a suburban residential community and its water demands increased significantly as a result. The City of Encinitas was incorporated in 1986 from the communities of Leucadia, historic Encinitas, Cardiff-by-the-Sea, and other surrounding communities. When the City of Encinitas was incorporated, the District became a subsidiary district of the City. The five City Council members also serve as the Board of Directors of the District. Currently, residential and commercial customers make up the majority of the District's water sales.

The District joined the San Diego County Water Authority (SDCWA) in 1948 to acquire the right to purchase and distribute imported water throughout its service area. SDCWA purchases water from the Metropolitan Water District of Southern California (MWD), sourced from both the State Water Project (SWP) and the Colorado River. SDCWA also has its own supplies from desalinated seawater and the Colorado River, which are secured separately from SDCWA's allocation from MWD. The District also receives local runoff water from Lake Hodges and imported raw water from the SDCWA. Both sources are treated at the R.E. Badger Filtration Plant, which is jointly owned by the District and the Santa Fe Irrigation District (SFID). Treated water from the SDCWA can also be delivered directly to the District. The District receives recycled water from San Elijo Joint Powers Authority (SEJPA). The District's water supplies are discussed in more detail in **Chapter 6 – System Supplies**.

The District's current water service area comprises 5,647 acres and serves a population of approximately 37,856. The District is more than 90% built-out; and therefore, projected growth within the District's service area is expected to be low. The District's terrain varies in elevation from sea level to approximately 400 feet above sea level due to its variable landscape consisting of rolling hills and valleys. The District's climate is semi-arid and average annual precipitation within the District was 10.33 inches between 1998-2020.

3.2 Service Area Boundary Maps

DWR recommends that service area maps be included in the 2020 UWMP. **Figure 3-1** and **Figure 3-2** show the District's potable water service area and its recycled water system, respectively.

Figure 3-1: Water Service Area

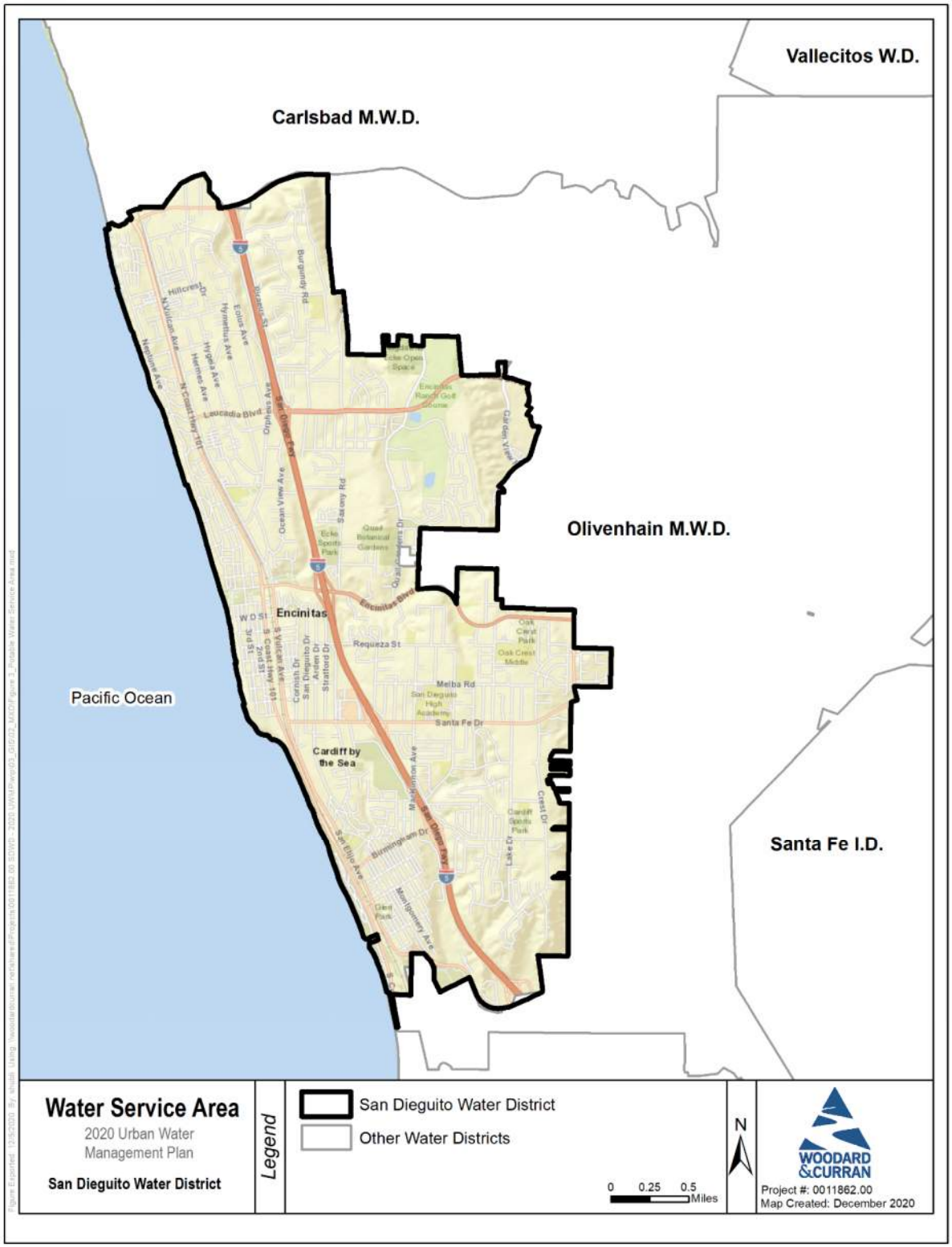
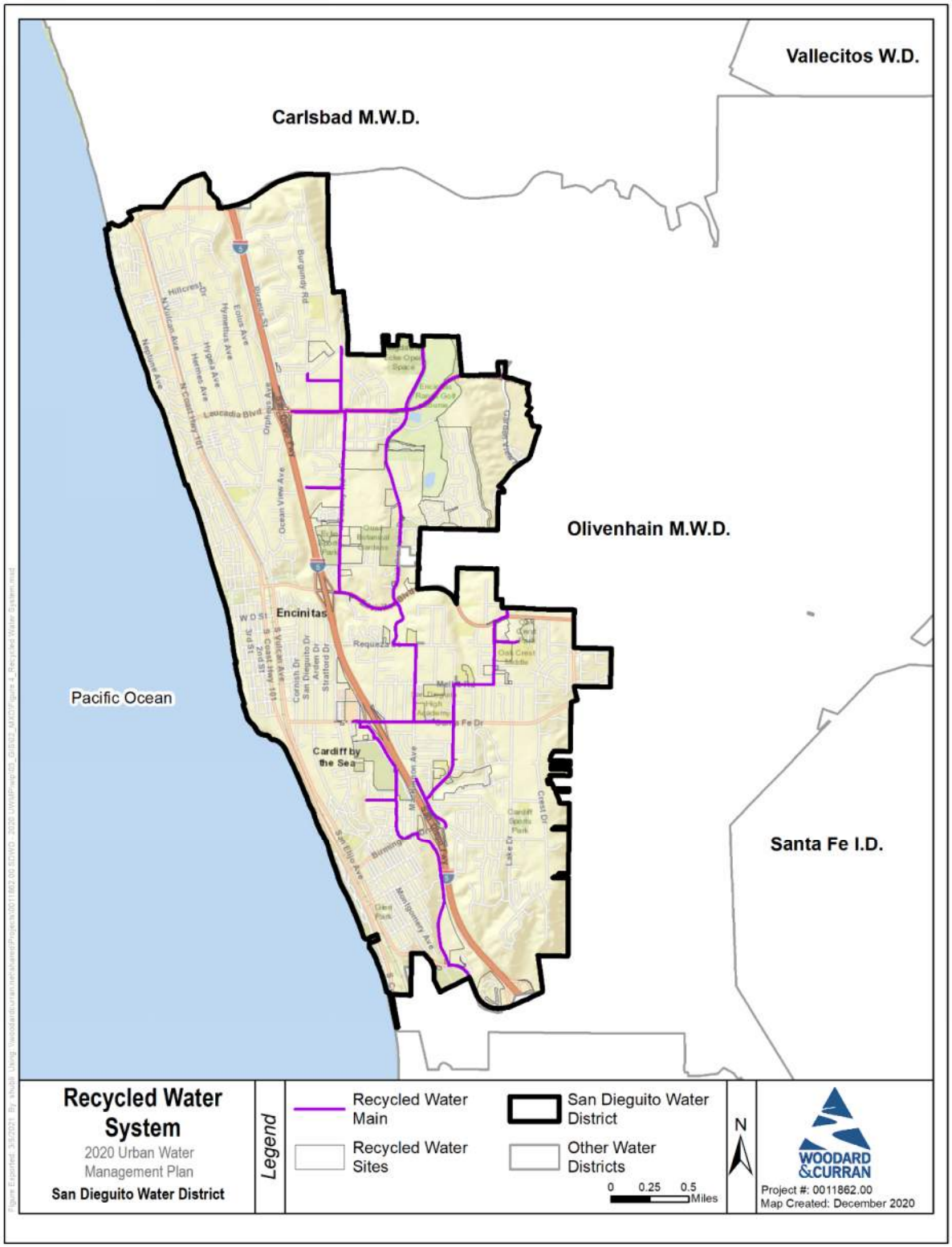


Figure 3-2: Recycled Water System



3.3 Service Area Climate

CWC Section 10631

(a) Describe the service area of the supplier, including… climate…

The District is located in an area that experiences a Mediterranean coastal climate. Summers are warm, mild, and dry with average temperatures in the 70s, while winters are cool and mild with average temperatures in the 50s. According to the National Oceanic and Atmospheric Administration, mean annual rainfall throughout the District was 11.84 inches from 1981-2010, the majority of which occurs between November and February each year, while the summer months are virtually rainless with no measurable precipitation typically occurring.

Table 3-1 summarizes the rainfall and temperature data collected at the Carlsbad McClellan Palomar Airport from 1981-2010, the most recently available Climate Normals from the National Climatic Data Center's (NCDC's) latest three-decade averages of climatological variables. The Carlsbad McClellan Palomar Airport is the nearest monitoring station to the District's service area. **Table 3-2** summarizes the rainfall and temperature data collected at Palomar Airport from 1998-2020. Total precipitation between 2010-2020 decreased due to the 2012-2016 drought, causing annual average precipitation from 1998-2020 to drop to 10.33 inches, which is lower than the 11.84 inches measured between 1981-2010. The precipitation data from NCDC are consistent with the City of Encinitas Climate Action Plan (2018), which estimated the City's historical annual average precipitation as 10.9 inches from 1950-2005 using Cal-Adapt's Annual Averages Tool.

Table 3-1: Monthly Average Climate Data Summary (1981-2010)

Month	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)		
	Mean	Max	Min	Mean
January	2.51	63.8	47.0	55.4
February	2.44	63.7	48.0	55.8
March	1.68	63.7	50.0	56.9
April	1.02	65.7	52.5	59.1
May	0.18	67.2	56.8	62.0
June	0.11	70.2	59.5	64.8
July	0.10	73.1	63.4	68.2
August	0.09	75.0	64.7	69.9
September	0.25	74.6	62.7	68.6
October	0.63	72.4	57.9	65.2
November	1.12	68.1	51.3	59.7
December	1.71	63.8	46.5	55.2
Total	11.84	N/A	N/A	N/A

NOTES: [1]Sourced from National Oceanic & Atmospheric Administration, available at: https://www.ncdc.noaa.gov/cdo-web/datatools/normals.

Table 3-2: Monthly Average Climate Data Summary (1998-2020)

Month	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)		
	Mean	Max	Min	Mean
January	1.78	65.7	47.9	56.1
February	2.30	64.2	48.4	55.8
March	1.12	64.6	50.9	56.9
April	0.99	66.2	53.3	57.8
May	0.34	67.6	57.4	61.6
June	0.05	69.9	60.5	64.3
July	0.06	74.3	64.7	68.5
August	0.04	75.7	65.5	69.4
September	0.11	75.7	63.6	68.5
October	0.63	73.2	58.6	64.3
November	1.08	69.3	52.4	58.9
December	1.83	64.7	47.4	55.6
Total	10.33	N/A	N/A	N/A

NOTES: [1]Sourced from National Oceanic & Atmospheric Administration, available at: https://www.ncdc.noaa.gov/cdo-web/datatools/normals.
[2]2020 data included in the table above ends in September 2020.

The District's borderline arid climate, combined with lower-than-average rainfall compared to the rest of the country, presents particular challenges to water supply planning, both short term and long term. The fact that the region experiences most of its rainfall within a relatively short amount of time also presents challenges to water agencies in Southern California, including the District. As a result, the District typically experiences two very distinct water consumption patterns, one during the wet season and another during the dry season, when landscape irrigation needs increase dramatically.

Increased temperatures and changes in precipitation patterns associated with climate change have elevated the risk of wildlife throughout California and the City of Encinitas and this trend is expected to continue. Areas with rugged terrain and vegetation are especially vulnerable to wildlife and are more at risk for uncontrolled fire spread. Wildfires also pose risks to quantity and quality of water supply. For example, wildfires can change the amount of water that comes from upstream forests and the seasonal timing of water flows, which could potentially cause water shortages for some communities if the change results in less available water supply during periods of high demand.

Climate Change and its impact on District water use, supplies, and reliability is addressed further in **Chapter 4 – System Water Use** (**Section 4.5**), **Chapter 6 – System Supplies** (**Section 6.10**) and **Chapter 7 – Water Supply Reliability** (**Section 7.1**).

3.4 Service Area Population, Demographics, Socioeconomics, and Land Use

CWC Section 10631

> *(a) Describe the service area of the supplier, including current and projected population ... The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

The District coordinated with the San Diego Association of Governments (SANDAG), the SDCWA, and the State Water Resources Control Board (State Water Board) to use the most recent population, demographic, socioeconomic, and land use data. The District's service area population projections are based on SANDAG's Regional Growth Forecast, Series 14, Version 17 model. The information included in **Table 3-3** was obtained from the SDCWA. Under the terms of a 1992 Memorandum of Agreement between the SDCWA and SANDAG, SDCWA utilizes SANDAG's official population forecasts to project consumptive water demands for the region. In order to develop its population projections, SANDAG extensively gathers information from a number of sources including city and county general and specific plans, U.S. Census Bureau data, County Assessor information, various standard demographic information including birth and death records, and other available land use and planning documents. Each year, SANDAG's findings are compared with the State Department of Finance figures that consider drivers' license data, tax records, and other pertinent demographic information.

SDCWA provides SANDAG with official boundary service area maps for each of its 24 member agencies. Based upon the specific member agency boundary areas, SANDAG provides SDCWA with current and projected population data, as well as historical population data. The District confirmed that SDCWA utilized the most current water service area boundary for the District.

The District's total population was estimated at 37,856 in calendar year 2020, as shown in **Table 3-3**, using DWR's Population Tool as discussed in **Chapter 5 – SB X7-7 Baselines, Targets, and 2020 Compliance** (**Section 5.3**). **Table 3-3** also includes population estimates for the District's service area through 2045, in 5-year increments, based on SANDAG's population projections. The District is relatively built-out and its total population is only projected to increase by approximately 9% between 2020 and 2045, which equates to a total population increase of approximately 3,400 people over the 25-year planning horizon for this 2020 UWMP. Note that the population estimates provided in **Table 3-3** are in terms of calendar year, rather than fiscal year because the SANDAG population projection data was provided for calendar years. Given that annual average population growth is very low in the District's service area, it is unlikely that there is a significant difference between fiscal year and calendar year population projections.

Table 3-3: Current and Projected Population (Calendar Year Data)

DWR Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045
	37,856	39,208	39,653	39,800	40,240	41,246
NOTES: 2020 population calculated using DWR's Population Tool. 2025-2045 populations based on SANDAG Series 14 Growth Forecast (Version 17).						

The future population projections from 2025 – 2030 are slightly higher in the 2020 UWMP compared to the population projections included in the 2015 UWMP. This difference can likely be attributed to the new planned affordable housing developments within the City of Encinitas which are described in more detail in **Section 3.4.2**. The population projections could have also slightly changed based on new assumptions that were included in SANDAG's Series 14 growth model, which include an increase in the number of projected housing units to accommodate a vacancy rate of 4% (met by 2040) and a regional decrease in the number of persons per household to 2.62 by 2050 as the population ages. These new assumptions result in some geographies losing overall population although housing units may stay the same or increase.

3.4.1 Demographic, Social, and Economic Factors

CWC 10631

> *Describe the service area of the supplier, including... other social, economic, and demographic factors affecting the supplier's water management planning.*

Most of the District's service area population lives in the City of Encinitas, which according to the U.S. Census Bureau (2019), has a median household income of $116,022 and 6.5% of the population living at or below the poverty line. The U.S. Census Bureau also estimates that 16% of the population speaks a language other than English home, 40% of the population is under 18 years old or 65 years and older, and 95% and 62% of the population (age 25 years or older) have a high school education or higher and a bachelor's degree or higher, respectively.

The District does not have any significant demographic factors that would affect its water management planning; however, the District is anticipating densification of land uses in the future as described in **Section 3.4.2**. This land use change has been accounted for in the District's forecast of accounts and associated usage, which is included in **Chapter 4 – System Water Use**.

3.4.2 Land Use

CWC 10631

> *Describe the service area of the supplier... The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning.*

The District's current land uses primarily consist of single-family residential use types, with approximately 80% of its customer base consisting of single-family residences. Multi-family residences represent another 12% of the District's customer base, with the remaining 8% consisting of non-residential use types (i.e., commercial, institutional, agricultural, etc.). The average residential lot size within the District is approximately 0.3 acres with a household density of 2.52 people per household in 2018 according to the City of Encinitas 2021-2029 Housing Element Update (adopted April 2021 as Resolution 2021-16).

The District expects its population density to increase over the 2020 UWMP planning horizon as a result of planned development within the City of Encinitas. The City's Housing Element is consistent with the goals of its General Plan which identifies and prioritizes several strategies and programs focused on providing affordable housing for all persons, including:

- Conserving and improving existing affordable housing;
- Providing adequate sites and range of housing types;
- Assisting in the development of affordable housing;

- Removing governmental and other constraints to housing development; and,
- Promoting equal housing opportunities.

The City of Encinitas also previously adopted three ordinances in 2018 in an effort to meet housing demand related to the following subjects, (1) updating to the existing Accessory Dwelling Unit (ADU) development standards [2018-01, 2018-11], and (2) allowing and defining provisions for Junior Accessory Dwelling Units (JADU) consistent with state law [2018-02]. Adoption of these ordinances replaced the City's previous definitions of ADU of JADU with the state's definitions to promote and support construction of ADUs to meet housing demand.

In 2019, the City of Encinitas amended its zoning regulations through the adoption of Ordinance No. 2019-04, which included implementation of a new land use designation from the General Plan known as the R30 Overlay Zone (R30-OL). Consistent with the General Plan's goals of expanding affordable housing, the R30-OL was implemented to provide additional residential development opportunities for sites to accommodate lower income housing with a minimum density of 25 units per acre and a maximum density of 30 units per acre. On June 20, 2018, the Encinitas City Council approved 15 sites, consisting of approximately 1,500 housing units, to be rezoned to the R30-OL. Approximately 1,301 of these 1,500 affordable housing units are located in the District's service area and the remaining 199 units are located within Olivenhain MWD's service area. The anticipated densification has been accounted for in the District's forecast of accounts and associated usage and is discussed in **Chapter 4 – System Water Use**. Compared to the 2015 UWMP projections, the anticipated densification may increase water use because the sites approved for rezoning are currently zoned as land uses with significantly lower maximum densities permitted (i.e., agriculture, single-family residential). However, densification is likely to reduce outdoor water use and result in a lower per-capita water use on the same sites, which could result in lower water overall water use, especially when coupled with indoor water use efficiency.

Chapter 4 System Water Use

Water use in the District is linked to weather, population, and the local economy. The District keeps records of its system's metered water deliveries and categorizes them by sector. In the late 1990s and early 2000s, the local economy was growing, and water use had been steadily rising. Water use reached 8,168 AFY in fiscal year 2000. From fiscal years 2001 to 2009, water use averaged 7,275 AFY of potable water and 558 AFY of recycled water. As water supplies became limited due to drought conditions between 2012 and 2017 and due to the adoption of the Water Conservation Act in 2009 (SB X7-7), the combination of water rationing and implementation of conservation programs further reduced demand for potable water, as reported in the 2015 UWMP. Potable water use decreased to an average of 6,109 AFY from fiscal years 2010 through 2015. During that time period, use of recycled water grew to 616 AFY, for a total annual demand of 6,725 AFY (potable and recycled water). Water use continued to shift even after drought conditions ended in 2017. Since the 2015 UWMP, potable water use has decreased to an average of 5,417 AFY, while use of recycled water has increased to an average of 667 AFY from fiscal years 2016 through 2020, for a total combined annual use of 6,084 AFY. The continued decrease in potable water use from 2016 through 2020 can be attributed to ongoing conservation and water use efficiency. Since drought conditions ended in 2017, water use has not rebounded back to pre-drought demands. This trend is accounted for in the demand projections presented later in this chapter.

In order to properly analyze the use of the District's water sources and to better plan and manage the District's future water supply, this chapter describes the District's current and projected water use through the year 2045.

This Chapter includes the following sections:

- Recycled versus Potable and Non-Potable Water Demand
- Water Uses by Sector
- Climate Change
- Distribution System Water Losses
- Water Use for Low Income Households

4.1 Recycled versus Potable and Raw Water Demand

As water supplies have become more limited, a diversified portfolio of water supply sources is encouraged. Recycled water provides one of the options for supply diversification. The District's recycled water use increased substantially from 2010 through 2015 and has continued to increase over the last five years, though at a slower rate. Raw water from Lake Hodges is treated to drinking water levels through the R.E. Badger Water Filtration Plant (Badger Plant) before it is distributed to the District's water system; therefore, no raw water is used within the District. The District's supply portfolio will be discussed in more detail in **Chapter 6 – System Supplies**.

4.2 Water Uses by Sector

CWC 10631

> *(d)(1) For an urban water retail supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use,*

based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

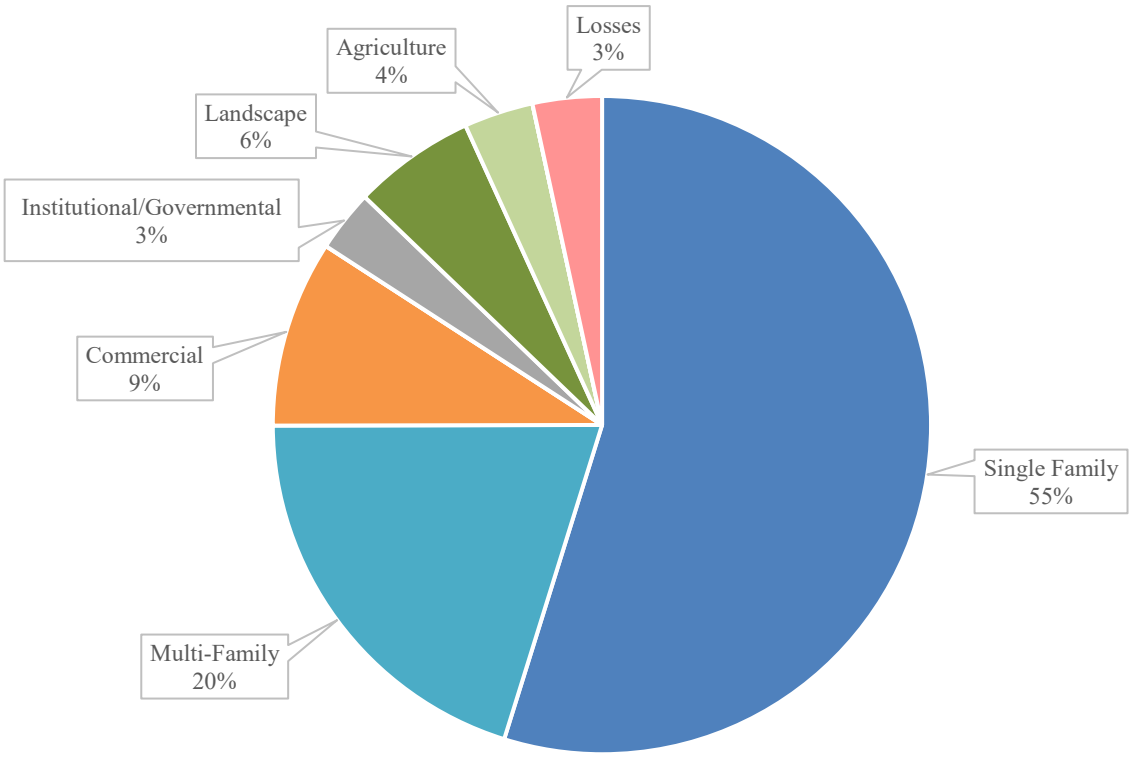
(J) Distribution system water loss.

Pursuant to CWC 10631, the District is required to include the historical, current, and projected water use in five-year increments in this Plan. Water use data was obtained from the District's water meter records and categorized into the different demand sectors that are accepted by DWR's Water Use Efficiency (WUE) Data online submittal tool, including single family residential, multi-family residential, commercial, industrial, institutional and government, landscape, and agricultural. In the 2015 UWMP, total potable water use for 2020 was projected to be 6,605 AFY; however, the actual metered water use for 2020 was 20% lower than projected at 5,277 AFY (excluding water loss). The distribution system water losses in 2020 were 186 AFY, as estimated based on the American Water Works Association (AWWA) water audit methodology and discussed in **Section 4.4**. The District's actual 2020 potable water use is presented by sector in **Table 4-1** and **Figure 4-1**.

Table 4-1: Current Potable Water Demands (2020)

DWR Table 4-1 Retail: Demands for Potable and Non-Potable Water - Actual			
Use Type	2020 Actual		
Description	Additional Description	Level of Treatment When Delivered	Volume[1]
Single Family		Drinking Water	2,994
Multi-Family		Drinking Water	1,102
Commercial		Drinking Water	501
Institutional/Governmental		Drinking Water	166
Landscape		Drinking Water	328
Agricultural irrigation		Drinking Water	186
Losses		Drinking Water	186
		TOTAL	5,463
NOTES: [1]Volume does not include recycled water demands.			

Figure 4-1: Current Potable Water Use by Sector (2020)



Water use within the District has been projected for the next 25 years, in 5-year increments, in order to continuously assess the District's water supply and water use conditions and support future infrastructure planning, capital improvement plans, water revenue, and land-use planning. The District relied on regional demand projection modeling completed by the SDCWA for its member agencies, and verified modeled projections were consistent with recent trends in District water use and consistent with anticipated land use in the District's service area.

The SDCWA's model relates historic water demand patterns to variables such as household income, consumer response to the price of water, and weather. The model also takes into account anticipated land use changes and population projections that are derived from SANDAG's Interim Series 14 model (see **Chapter 3 - System Description).** The model, therefore, includes water projections based upon demographic and land use patterns, which is DWR's recommended approach for forecasting demands in UWMPs.

Information from the SDCWA includes both a baseline projected demand and a projected demand after implementation of active and passive conservation measures. In this context, passive conservation savings are derived from the implementation of various regulations and codes, and active conservation savings are those resulting from the implementation of demand management programs (refer to **Chapter 9 - Demand Management Measures).**

The demand forecast developed by SDCWA was used as the basis of the projections and is shown in **Table 4-2**.

Table 4-2: SDCWA Demand Forecast

	2025	2030	2035	2040	2045
Baseline M&I Demand	7,738	7,926	8,069	8,342	8,634
Baseline Agricultural Demand	201	201	201	201	201
Total Baseline Demand	*7,939*	*8,127*	*8,270*	*8,543*	*8,835*
Conservation	1,443	1,271	1,327	1,440	1,524
Net Total Water Demands	*6,496*	*6,856*	*6,943*	*7,103*	*7,311*
Member Agency Local Supplies	2,835	2,835	3,134	3,134	3,134
Demand on SDCWA[1]	3,661	4,021	3,809	3,969	4,177
NOTES: [1]Demand on SDCWA based on Table 2-8 of SDCWA Draft 2020 UWMP (March 2021).					

Future water demand for all water use sectors is assumed to increase proportionately with population growth except for the agriculture use sector. Agriculture water use has decreased since 2015 as some agricultural land was converted to residential use; however, additional conversion is not expected, and agricultural water use is projected to remain consistent between 2020 and 2045. Future water use projections by use sector from 2025-2045 are shown in **Table 4-3** and **Figure 4-2**.

Table 4-3: Projected Potable Water Demands

DWR Table 4-2 Retail: Use for Potable and Non-Potable Water - Projected						
Use Type	Additional Description	Projected Water Use[1]				
Description		2025	2030	2035	2040	2045
Single Family		3,125	3,324	3,373	3,462	3,578
Multi-Family		1,173	1,249	1,267	1,301	1,345
Commercial		536	571	579	595	615
Landscape		167	178	181	186	192
Institutional/Governmental		390	416	422	433	447
Agricultural irrigation		201	201	201	201	201
Losses		204	217	220	226	233
TOTAL		5,796	6,156	6,243	6,404	6,611
NOTES: [1]Projected water use does not include recycled water demands.						

Historical and projected water use by sector, from 2015 through 2045, is shown in **Figure 4-2**. Total projected water use, from 2020 through 2045, with recycled water use separated, is summarized in **Table 4-4**. Recycled water use projections for the next 25 years are discussed in more detail in **Chapter 6 – System Supplies**.

Figure 4-2: Total Historical and Projected Demand

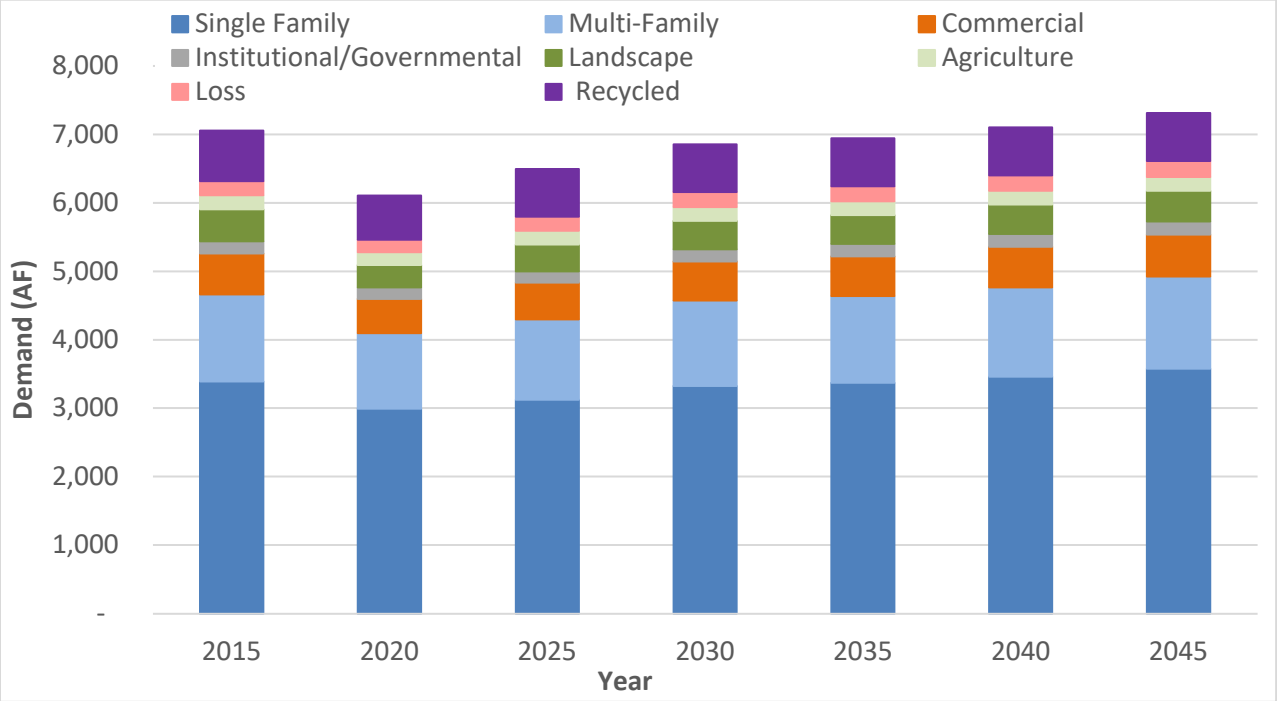


Table 4-4: Total Demand

DWR Table 4-3 Retail: Total Gross Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045
Potable and Raw Water *From Tables 4-1 and 4-2*	5,463	5,796	6,156	6,243	6,404	6,611
Recycled Water Demand *From Table 6-4*	642	700	700	700	700	700
TOTAL WATER DEMAND	6,105	6,496	6,856	6,943	7,104	7,311

4.3 Distribution System Water Losses

CWC 10631

(d)(1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following…

(J) Distribution system water loss…

(d)(3)(A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

Per the CWC 10631(d)(3)(a), the District is required to estimate its distribution system losses for each of the five years preceding the plan update. The District used water losses estimated during the preceding five years to project losses in 5-year increments for the future. Distribution system water losses can reflect the quality and efficiency of the District's system operations.

Distribution system water losses include real losses (i.e., system leakage) and apparent losses (i.e., customer metering inaccuracies) can be estimated using the AWWA Water Audit Method. The District has a reliable water meter system and has kept good records on its water use data so unmetered water use is negligible. The District's water losses could not be quantified for each of the five years preceding the plan update because its audits from fiscal year 2016 and 2019 are inaccurate. Therefore, the District's average water losses from fiscal years 2017, 2018, and 2020 were reviewed for the purpose of projecting future losses.

For each fiscal year, the District's total water losses (real plus apparent losses) were estimated by dividing the total water loss in AF, as reported in the District's audit, by the sum of potable water use of the remaining water use sectors. Using this method, the District's average water losses were estimated as 5.5% and 6.2% of total demand in fiscal years 2017 and 2018, respectively, compared to only 3.5% of total demand in fiscal year 2020. This reduction in water losses is largely due to several system water loss control measures that the District has implemented to minimize water losses. For example, the District has a Meter Replacement Program that replaces water meters every 12 to 15 years. The District also performs non-destructive testing of water mains regularly to assess the remaining life of the mains and detect leakage problems.

Because the District has achieved significant reductions in water losses since fiscal year 2018, water losses for 2025-2045 were projected based on the fiscal year 2020 water losses and calculated as 3.5% of the forecasted potable demand.

Table 4-5 summarizes the District's distribution system losses in fiscal years 2017, 2018, and 2020 and the AWWA worksheets used to calculate the water losses for these fiscal years are provided in **Appendix D**.

Table 4-5: Annual Water Losses

DWR Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss
07/2016	N/A
07/2017	290
07/2018	362
07/2019	N/A
07/2020	186
NOTES: Water losses not available for 2016 and 2019 because SDWD's fiscal year water loss audits are inaccurate.	

4.4 Water Use for Lower Income Households

CWC 10631.1

> *(a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

California Health and Safety Code 50079.5

> *(a) "Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families… In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually.*

The District is located primarily within the City of Encinitas. According to Table B-12 of the City of Encinitas Housing Element (April 2021), approximately 29% of households within the City of Encinitas are considered low, very low, or extremely low income based on the 2012-2016 American Community Survey (ACS) 5-year estimates. Affordable housing units within the District are located in different designated zones, including Mixed Commercial, Single Family Residential, and Multi-Family Residential. The number of residential affordable housing units, single family and multi-family combined, was estimated as a proportion of the total number of housing units within the District's service area based on the percentage of low-income households in the City of Encinitas, as described above, and the estimated number of households as of 2020. Number of households was estimated by dividing the District's total population in 2020 (37,856) by the average number of persons per household for the City of Encinitas (2.52) based on Table B-10 of the Housing Element, resulting in a total of 15,022 households. Therefore, the number of affordable housing units within the District, single-family and multi-family combined, was estimated as 4,356 in 2020, or 29% of the total households.

As discussed in **Chapter 3 – System Description** (**Section 3.4**), the City of Encinitas General Plan prioritizes conserving, promoting, and expanding affordable housing. As such, the City has proposed several affordable housing development projects which are anticipated increase the number of affordable housing units within the District, single-family and multi-family combined, by 1,301 units to a total of 5,459 by the year 2029.

Actual water use in 2020 from single-family and multi-family residences within the District's service area totaled 4,095 AFY, or approximately 98 gallons per capita per day (GPCD), not including landscape, as shown in **Table 4-1**. In 2030, water use from single-family and multi-family residences within the District's service area is projected to be 4,573 AFY as shown in **Table 4-3**, or approximately 103 GPCD. Multiplying the actual 2020 and 2030 projected per capita water uses (98 GPCD and 103 GPCD, respectively) by the City of Encinitas household density of 2.52 persons per household results in a current and projected water use of approximately 247 and 259 gallons per household per day, respectively. Finally, current and projected demands for affordable housing units within the District's service area were estimated by multiplying the number of low-income households by the water use per household per day, as shown in **Table 4-6**.

Table 4-6: Current and Projected Demands for Low-Income Housing

	Current (2020)	Projected (by 2029)
Number of Low-Income Housing Units	4,356	5,459
Per Capita Water Use (GPCD)	98	103
Low-Income Water Demands (AFY)	1,203	1,587

As indicated in **Table 4-7**, water use projections for affordable housing units have been included in the projected water demands shown in **Section 4.2** of this chapter.

Table 4-7: Projection Components

DWR Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook)	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc… utilized in demand projections are found.	Section 4.2 Water Uses by Sector
Are Lower Income Residential Demands Included In Projections?	Yes

4.5 Climate Change

CWC 10630

> *It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.*

Climate change is defined as the long-term change in weather patterns over a specific time period. Specifically, global warming refers to a type of rapid climate change that has occurred over the past 60 years and is anticipated to continue into the future.

Climate change can have a potentially significant impact on water supply and water demand planning as temperatures are expected to increase in already semi-arid regions, such as the District.

The SDCWA, the City of San Diego, and the County of San Diego formed a Regional Water Management Group (RWMG) to develop San Diego's Integrated Regional Water Management Plan (IRWM Plan). The IRWM Plan objectives include developing long-term water reliability, improving water quality, and protecting natural resources. The RWMG coordinated with the District, other state and federal agencies, and local water agencies to develop and update the IRWM Plan. The IRWM Plan includes a Climate Change Planning Study completed in May 2013 that evaluates the adaptability of water management systems in the San Diego IRWM region to climate change. The study included a vulnerability analysis to identify the region's climate change issues. These vulnerabilities were prioritized to determine their level of adaptability.

With consideration of the prioritized climate change vulnerability issues identified in the IRWM Plan, the District has completed an IRWM Climate Change Vulnerability Assessment (Vulnerability Assessment) which is provided in **Appendix E**. This Vulnerability Assessment evaluates the potential impacts of climate change on different aspects, including water demand, water supply, water quality, sea level rise, flooding, ecosystem and habitat vulnerability, and

hydropower. The Vulnerability Assessment focuses primarily on the water demand, water supply, and water quality elements. This section primarily discusses the vulnerability issues in water demand. Vulnerability issues in water supply is discussed in **Chapter 6 – System Supplies** (**Section 6.10**).

When California was experiencing the fourth consecutive year of drought in 2015, the District Board declared a Water Supply Shortage Response Level 3 Condition to restrict water use. In addition, the District approved other drought actions and water conservation programs to restrict certain water uses and reduce water consumption. In 2019, the District implemented additional water conservation activities such as sponsoring presentations and lab activities on water conservation in local schools and co-sponsoring various conservation workshops on landscape (totaling 200 attendees), rain barrels, and greywater.

Based on the District's 2018 to 2020 monthly water use data, minimum and maximum monthly water use varies by approximately 35% of the average monthly water use, meaning water use varies by more than 75% seasonally within the District. The lowest water use occurs during the spring, especially the month of March, and the highest use over the summer months into early fall, particularly August through October.

Based on the historical data, irrigation demand tends to increase with higher temperatures and less rainfall events. Crops grown within the District are climate-sensitive and therefore may require more irrigation. Climate change is expected to increase temperatures across the San Diego County region. The Climate Change Planning Study projects that rainfall will vary across the region and some areas will receive between 35% less and 17% more rainfall, and storms may be less frequent but more intense. The region's baseline water demand, excluding conservation, is projected to increase by approximately 56% by 2045 due to climate change. However, the region's baseline water demand is only projected to increase by roughly 37% by 2045 if projected future conservation savings of nearly 86,000 AFY are achieved.

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Chapter 5 SB X7-7 Baselines, Targets, and 2020 Compliance

Senate Bill X7-7 (SB X7-7), also known as the Water Conservation Act of 2009, requires that all urban retail water suppliers reduce their per capita urban water use by at least 20% by the year 2020. SB X7-7 has been a driver of suppliers' efforts to establish, promote, and prioritize water conservation programs throughout California to achieve demand reductions.

This chapter describes the District's compliance with SB X7-7. Compliance with SB X7-7 is assessed through the calculation of three primary figures, in terms of gallons per capita per day (GPCD), to determine compliance:

1. Baseline Water Use (Baseline Demand): Supplier's baseline demand from which SB X7-7 compliance is measured, based on 10-year and 5-year baseline periods.
2. Interim Water Use Target (Interim Target): Mid-way per capita demand between the Baseline Demand and the 2020 Water Use Target that was used as an interim target to evaluate compliance with SB X7-7 in the 2015 UWMPs and track a supplier's progress towards achieving its 2020 Target. The Interim Target was required to be met by 2015, as documented in the 2015 UWMP.
3. 2020 Water Use Target (2020 Target): Supplier's target water use that would result in a 20 percent reduction in total per capita urban water use by the year 2020.

This chapter presents the District's baselines and targets, which were calculated as part of its 2010 UWMP and updated in its 2015 UWMP and compares the District's actual 2020 water use with its 2020 Target to demonstrate compliance with SB X7-7. The District's actual water use in 2020 was 129 gpcd, which is approximately 15% less than its 2020 Target of 151 gpcd. This chapter includes the following sections:

- Summary of 2015 UWMP Analysis
- Baseline Periods
- Service Area Population
- Gross Water Use
- Baseline Daily per Capita Water Use
- Baselines and 2020 Target Summary
- Regional Alliance
- 2020 Compliance Daily per Capita Water Use (GPCD)

5.1 Summary of 2015 UWMP Analysis

CWC 10608.20

> *(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).*

Methodologies DWR 2011, Methodology 2 Service Area Population

> *Page 27 - Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates.*

5.1.1 Target Method

As part of the 2015 UWMP, a water supplier was allowed to update its 2020 Target using a different target method than what was used in the 2010 UWMP. These target methods are listed in the Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (Methodologies). The District followed the 2015 UWMP Guidebook and Methodologies when updating its 2020 Target as part of the 2015 UWMP. Details on the development of its baseline targets are discussed in the following sections.

5.1.2 SB X7-7 Verification Form

Retail water suppliers were required to submit the standardized tables in the SB X7-7 Verification Form with their 2015 UWMPs to demonstrate compliance with the Water Conservation Act of 2009. Suppliers can choose to determine and report progress toward achieving its targets on an individual and/or regional basis in accordance with CWC 10608.28(a).

The SB X7-7 Verification Form submitted in the District's 2015 UWMP was used to determine the District's baseline daily per capita water use, compliance year daily per capita water use, 2020 Target, and 2015 Interim Target, and to assess whether the District was in compliance with its established 2015 Interim Target and on track to meet its 2020 Target. The SB X7-7 Verification Form submitted with the 2015 UWMP is included in **Appendix F**.

5.2 Service Area Population

CWC 10608.20

> *(e) An urban retail water supplier shall include in its urban water management plan due in 2010…the baseline per capita water use…along with the bases for determining those estimates, including references to supporting data.*
>
> *(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.*

CWC 10644

> *(a)(2) The plan…shall include any standardized forms, tables, or displays specified by the department.*

In order to calculate per capita water use (GPCD), water suppliers need to estimate their service area populations. The Guidebook outlines several methods that a water supplier can use to estimate its service area population including population data from the Department of Finance (DOF), Persons-per-Connection Method, DWR Population Tool, and Other methods that require review and approval from the DWR.

The District used the DWR Population Tool to estimate its service area population. As the District's service area boundary only intersects a portion of the City of Encinitas, and the remainder of the City is served by Olivenhain Municipal Water District, the DOF population data could not be used directly to estimate the District's service area population. The District's service area boundaries and number of service connections for Census years were inputted to DWR's Population Tool, which uses the data to calculate population by Census year within the District's delineated service area. The DWR Population Tool was used to estimate the District's population for the baseline years as shown in Table 3 of the SB X7-7 Verification Form (**Appendix F**). The DWR Population Tool was also used to estimate the District's service area population for the Compliance Year (2020). The District's service area population was estimated to be 37,856 in 2020 as shown Table 3 of the SB X7-7 Compliance Form (**Appendix F**).

5.3 Baseline Periods

CWC 10608.20

> *(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . the baseline daily per capita water use…along with the bases for determining those estimates, including references to supporting data.*
>
> *(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).*

A water supplier calculates its baseline period as "a 10- to 15-year continuous period ending between December 31, 2004, and December 31, 2010". Suppliers are required to calculate and report their 10- or 15-year baseline water use in GPCD (Baseline Demand) per the CWC 10608.12 to develop Interim and 2020 Targets required to achieve the demand reductions mandated by SB X7-7.

CWC 10608.12

> *(b) "Base daily per capita water use" means any of the following:*
>
> *(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*
>
> *(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*
>
> *(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.*

The District delivered 600 AFY of recycled water in 2008, which accounted for 8% of its total deliveries. As recycled water accounted for less than 10% of the District's total deliveries in 2008, the District's Baseline Demand was calculated using a 10-year baseline period in accordance with CWC 10608.12. In the 2015 UWMP, the District selected 1996 to 2005 as its 10-year baseline period, reported on a fiscal year basis. For example, the fiscal year for 1996 began on July 1, 1995 and ended on June 30, 1996. In the 2015 UWMP, the District selected 2004 to 2008 as its 5-year baseline period, reported on a fiscal year basis. These 10- and 5-year baseline periods were used to calculate the District's per capita water use to determine its Baseline Demand.

5.4 Gross Water Use

CWC 10608.12

> *(h) "Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:*
>
> *(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier*
>
> *(2) The net volume of water that the urban retail water supplier places into long term storage*
>
> *(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier*

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

California Code of Regulations Title 23 Division 2 Chapter 5.1 Article

Section 596 (a) An urban retail water supplier that has a substantial percentage of industrial water use in its service area is eligible to exclude the process water use of existing industrial water customers from the calculation of its gross water use to avoid a disproportionate burden on another customer sector.

The District records its water use by sector monthly for the following use categories: agriculture, commercial, construction, single family residential, multi-family residential, government, landscape, and public. Per CWC 10608.12, agriculture water use can be excluded in the calculation of gross water use; however, since agriculture water use only accounted for less than 5% of the District's total water use in 2020, the District included it as part of its gross water use calculation. The District does not serve any industrial water customers, so no process water needed to be excluded in the gross water use calculation.

The District's 10-year and 5-year baseline average gross water use was 7,471 AFY from 1996 to 2005 and 7,261 AFY from 2004 to 2008. Table 4 of the SB X7-7 Verification Form (**Appendix F**) lists the annual gross water use of the baseline years. The District's actual water use in fiscal year 2020 was 5,277 AFY, excluding agricultural and recycled water.

5.5 Baseline Daily Per Capita Water Use

To assess compliance with the District's 2020 Target, the daily per capita water use (GPCD) in each year of the baseline period and the compliance year (2020) were calculated. The annual GPCD was calculated by dividing annual gross water use by the annual service area population. Annual GPCDs calculated for the 10-year and 5-year baseline periods were averaged to determine the 10-year and 5-year average baseline GPCDs, respectively. The 10-year average baseline GPCD was calculated to be 189 gpcd, and the 5-year average baseline GPCD was calculated to be 177 gpcd. The actual daily per capita water use for 2020 was calculated as 129 gpcd and is discussed in more detail in **Section 5.7**.

5.6 Baselines and 2020 Target Summary

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . urban water use target, interim urban water use target…along with the bases for determining those estimates, including references to supporting data.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan…

Water suppliers can calculate their 2020 Targets using any of the four methods listed in the Methodologies. The District calculated its 2020 Target as part of its 2015 UWMP using Target Method 1, which is a 20% reduction of the 10-year average baseline GPCD, resulting in a 2020 Target of 151 gpcd. Detailed calculations are provided in the SB X7-7 Verification Form (**Appendix F**). The District's calculated 10-year and 5-year average baseline GPCDs and confirmed 2020 Target are summarized in **Table 5-1**.

Table 5-1: SB X7-7 Baselines and 2020 Target

DWR Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form				
Baseline Period	Start Year	End Year	Average Baseline GPCD	Confirmed 2020 Target*
10 year	1996	2005	189	151
5 Year	2004	2008	177	

5.7 2020 Compliance Daily per Capita Water Use (GPCD)

CWC 10608.12

> *(e) "Compliance daily per-capita water use" means the gross water use during the final year of the reporting period…*

CWC 10608.20

> *(e) An urban retail water supplier shall include in its urban water management plan due in 2010 . . . compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*

In accordance with CWC 10608.12, the District is required to determine whether it has met its daily water use target for the final year of the reporting period of this Plan, which is for the year 2020. Because there was no substantial change to the District's service area between 2015 and 2020, the District did not recalculate its baselines and targets for this 2020 UWMP and was allowed to use the standardized tables in the new SB X7-7 Compliance Form to calculate actual 2020 water use to compare to its 2020 Target. The District's actual 2020 daily water use was calculated to be 129 gpcd, which is well below its 2020 Target of 151 gpcd (approximately 15% less); thus, the District achieved the targeted reduction and is in compliance with the SB X7-7 requirements, as shown in **Table 5-2** below and Table 5 of the SB X7-7 Compliance Form (**Appendix F**).

Table 5-2: SB X7-7 Individual Compliance with 2020 Target

DWR Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form				
Actual 2020 GPCD	**Optional Adjustments to 2020 GPCD**		2020 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2020?
	2020 Total Adjustments	Adjusted 2020 GPCD		
129	0	N/A	129	Yes

5.8 Regional Alliance

The District has elected to assess and report compliance with SB X7-7 demand reductions on an individual agency basis and a regional basis as part of a Regional Alliance. The Guidebook and the Methodologies provide guidance to urban retail water suppliers regarding formation and execution of a Regional Alliance in accordance with CWC 10608.28 and the related provisions of SB X7-7. Regional Alliances must complete and submit a Regional Alliance Report to the DWR as part of their UWMPs.

The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District formed a Regional Alliance (known to DWR as the "Olivenhain Regional Alliance") to cooperatively assess and report progress towards achieving their water targets on a regional basis. Each of the four members of the Regional Alliance receive water from a common wholesale water supplier, SDCWA, and are located within the South Coast Hydrologic Region as shown in the California Water Plan. The Regional Alliance members elected to continue the alliance for SB X7-7 reporting purposes for the 2020 UWMPs.

The members entered into a cooperative agreement on April 15, 2011 to establish and carry out the Regional Alliance and jointly notified the DWR of the formation of their regional alliance thereafter. A copy of the Cooperative Agreement is provided as **Appendix B**. In accordance with the Guidebook and Methodologies, the members evaluated regional SB X7-7 compliance against a weighted urban water use 2020 Target using reporting Option 1, as shown in **Table 5-3**. Detailed calculations for the Regional Alliance are provided in **Appendix G**. Each member of the Regional Alliance has developed its own 2020 Target, along with other supporting data and determinations, all of which are included in each member's UWMP. As shown in **Table 5-3**, the Regional Alliance's actual 2020 GPCD of 150 gpcd is less than its weighted 2020 Target of 204 gpcd and is therefore in compliance with SB X7-7.

Table 5-3: SB X7-7 Regional Alliance Weighted 2020 Target and Actual 2020 GPCD

SB X7-7 RA1 - Weighted 2020 Target				
Participating Member Agency Name	2020 Target GPCD	2015 Population	(Target) X (Population)	Regional Alliance Weighted Average 2020 Target
San Dieguito Water District	151	37,200	5,617,200	
Olivenhain MWD	282	70,522	19,887,204	
Rincon del Diablo MWD	227	27,476	6,237,052	
Vallecitos Water District	159	93,897	14,929,623	
Regional Alliance Total	819	229,095	46,671,079	**204**
SB X7-7 Regional Alliance - 2020 GPCD (Actual)				
Participating Member Agency Name	2020 Actual GPCD	2020 Population	(Target) X (Population)	Regional Alliance 2020 GPCD (Actual)
San Dieguito Water District	129	37,856	4,883,424	
Olivenhain MWD	206	72,179	14,868,874	
Rincon del Diablo MWD	135	32,019	4,322,565	
Vallecitos Water District	125	105,741	13,217,625	
Regional Alliance Total	595	247,795	37,292,488	**150**

Chapter 6 System Supplies

The San Dieguito Water District (District) is one of two water districts that serve the City of Encinitas (City), which includes the communities of Old Encinitas, New Encinitas, Leucadia, Cardiff, and Olivenhain. The District provides potable water and recycled water to nearly 38,000 customers within its service area, while Olivenhain Municipal Water District (OWMD) serves the rest of the City. The District's water supply portfolio includes local surface water from Lake Hodges, purchased treated and raw water from the San Diego County Water Authority (SDCWA), and recycled water produced by surrounding wastewater agencies with tertiary treatment. Each of these supplies are discussed in more detail throughout this chapter.

The District's water supply portfolio varies based on local climate conditions, which can significantly affect the proportion of local and imported water supplies. This chapter will not only describe the District's current water supply sources, but it will also discuss potential future sources of supply that could reduce the District's dependency on imported water from SDCWA. The following sections are included in this chapter:

- Purchased or Imported Water
- Groundwater
- Surface Water
- Stormwater
- Wastewater or Recycled Water
- Desalinated Water Opportunities
- Exchanges or Transfers
- Future Water Projects
- Summary of Existing and Planned Sources of Water
- Climate Change Impacts to Supply
- Energy Intensity of Supplies

6.1 Purchased or Imported Water

The District joined the SDCWA in 1948 to acquire the right to purchase and distribute imported water throughout its service area. Membership in the SDCWA was essential because local potable water supplies (Lake Hodges) could not provide sufficient, reliable quantities to meet demands within the District's service area.

The District receives treated and raw water from its wholesale supplier, the SDCWA. The SDCWA has three primary sources of supplies including the State Water Project (SWP) supplies purchased from the Metropolitan Water District of Southern California (MWD), Colorado River Aqueduct (CRA) supplies that are from long-term transfer agreements and purchased from MWD, and local supplies in the form of desalinated seawater. SWP supplies are entirely purchased from MWD, of which the SDCWA is a member agency. In recent years, between 20% and 30% of SDCWA's supplies have come from the SWP, which supplies water through the Sacramento-San Joaquin Bay Delta (Bay-Delta). The Bay-Delta is a large network of channels and islands that collect runoff from the Sierra Nevada; this water is conveyed to customers through California, including MWD.

On average, more than half of the SDCWA's supplies are sourced from the Colorado River. Colorado River supplies are either purchased from the MWD or supplied directly to the SDCWA through a long-term water conservation and transfer agreement (known as the Quantification Settlement Agreement or QSA) and through two canal-lining agreements. The Coachella and All-American Canal Lining Projects were constructed as part of a joint conservation effort between

the Imperial Irrigation District (IID), SDCWA, the Department of Water Resources (DWR), and the Bureau of Reclamation, and they currently provide 77,700 acre-feet per year (AFY) of water to the San Diego region.

All of the District's imported raw water supplies, and its local surface water supplies from Lake Hodges, are treated at the R.E. Badger Filtration Plant (Badger Plant), which is jointly owned by the District and the Santa Fe Irrigation District (SFID). The Badger Plant has the capacity to treat up to 40 million gallons per day (MGD), or approximately 44,835 AFY, though it typically treats approximately half this volume in a given year.

The District utilizes solely owned and jointly owned reservoirs to store its water supplies. The District is the sole owner of two underground treated water reservoirs with capacities of 7.5 million gallons (MG) and 2.5 MG, that are located within the District's service area. The District shares ownership of two additional reservoirs with SFID, including an 883 acre-foot (AF) raw water reservoir, known as the San Dieguito Reservoir, and a covered 13 MG treated water reservoir. Additionally, the District has one-third ownership in a 3 MG treated water storage reservoir, of which OWMD owns the remaining two-thirds; however, this reservoir is currently out of service.

In response to the 2012 to 2017 drought, when local surface water supplies were limited, the District increased its volume of imported water from 1,901 AFY in 2011 to 5,749 AFY in 2015. Since the drought ended in 2017, the District has reduced its volume of imported water. In 2020, the District only imported 3,127 AFY of water.

The volumes of the District's actual imported water in 2020 and its projected imported water through 2045 are shown in **Table 6-8** and **Table 6-9** of this chapter, respectively.

6.2 Groundwater

CWC 10631(b)(4)

> *If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information [shall be included in the plan]:*
>
> *(A) The current version of any groundwater sustainability plan or alternative…, any groundwater management plan adopted by the urban water supplier…or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.*
>
> *(B) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.*
>
> *(C) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*
>
> *(D) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*

As shown in **Table 6-1** below, the District does not use groundwater to supply its service area. The District does not plan to develop its own groundwater supply sources in the future due to cost and feasibility issues.

Table 6-1: Groundwater Volume Pumped from 2016-2020

DWR Table 6-1 Retail: Groundwater Volume Pumped						
☑	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	Location or Basin Name	2016	2017	2018	2019	2020
TOTAL		0	0	0	0	0

6.3 Surface Water

The District sources surface water locally from Lake Hodges. Lake Hodges is located west of Interstate 15 and east of Olivenhain Reservoir within the San Dieguito River Watershed and is owned and operated by the City of San Diego. At 347 square-miles, Lake Hodges has the largest drainage basin of any surface water source in San Diego County. Lake Hodges covers approximately 1,234 acres and can hold up to 30,000 AF of water when full. The District and SFID jointly maintain rights to local surface water that flows into Lake Hodges. The City of San Diego also maintains rights to Lake Hodges inflow. SDCWA has the right to store water in Lake Hodges but does not maintain rights to the local surface water inflow. Of the total 30,000 AF of storage capacity in Lake Hodges, SDCWA has the right to store 20,000 AF and the City of San Diego has the right to store 5,000 AF. The District and SFID have the ability to use the remaining 5,000 AF of lake capacity for storage.

Through a 1966 agreement with the City of San Diego, the District and SFID could purchase an average of 7,500 AFY of raw water from the City of San Diego. In 1998, the original agreement was revised and the amount of water that could be purchased by the District was changed. The amount available for purchase was modified to half of the inflow into Lake Hodges after the completion of the Lake Hodges to Olivenhain Pipeline, which was part of the Lake Hodges Project. The Lake Hodges Project included construction of pipeline tunnels and pump stations to connect Lake Hodges to Olivenhain Reservoir and to the regional aqueduct system. Through the project, Lake Hodges became part of the SDCWA Emergency Storage Project, which supplies water to the San Diego region in the event of an interruption in imported water deliveries.

The current water rights agreement called "*Amendment to and Restatement of March 17, 1998 Agreement Between the City of San Diego, Santa Fe Irrigation District and San Dieguito Water District Regarding Lake Hodges*" (refer to **Appendix H**) was completed in November of 2014. Pursuant to this agreement, the total agreed upon hydraulic yield, to be shared between these three parties, is approximately 11,400 AFY. In any single year, 50% of the annual hydraulic yield is the shared property of the District and SFID, and the remaining 50% belongs to the City of San Diego. Therefore, in any single year, the District and SFID share rights to 5,700 AF of the water entering Lake Hodges, which represents 50% of the total hydraulic yield of 11,400 AFY. In addition, any surface water runoff in excess of 11,400 AFY is split between the District and SFID (50%) and the City of San Diego (50%). Furthermore, the District and SFID are entitled to share 50% of the total available diversion capacity to transfer water out of Lake Hodges during spill events, when the volume of water in Lake Hodges exceeds its storage capacity. The District and SFID have an agreement to split their shared 5,700 AFY hydraulic yield as follows: approximately 42.7% to the District and the remaining 57.3% to SFID. Thus, based on the agreed upon hydraulic yield

allocations, the District has rights to 2,434 AFY of storage capacity within Lake Hodges, or 21.3% of the total inflow into the lake. Regarding annual costs, the District has agreed to pay 25% of both the operation and maintenance costs and capital costs associated with Lake Hodges.

The percentage of local surface water that makes up the District's total water supply portfolio varies depending on climatic conditions. In 2011, the District's local water supply from Lake Hodges was 4,434 AFY and accounted for almost 65% of the District's total water supply. However, the 2012 to 2017 drought significantly reduced the hydraulic yield from Lake Hodges. The proportion of the District's supplies from local surface water dropped to less than 16%, or 1,136 AFY in 2014, and to less than 9%, or 603 AFY, in 2015. Since the drought ended in 2017, the District's water supply from Lake Hodges has increased. In 2020, the District's Lake Hodges supply was 2,555 AFY.

Although the District did not experienced drought conditions in 2020, a new supply constraint has temporarily limited its local surface water supply allocation from Lake Hodges. Due to dam performance and safety deficiencies, including dam deterioration, dam overtopping, spillway condition, structural stability, emergency drawdown capability, and instrumentation for monitoring dam safety, DWR's Division of Safety of Dams (DOSD) has temporarily lowered the maximum allowable water level in Lake Hodges by 20 feet until the dam is repaired, resulting in a reduction of allowable storage. The City of San Diego is leading the effort to repair the dam, but the project is not expected to be completed until 2030. As a result, the District and SFID's shared water rights have been temporarily reduced from 5,700 AFY to 5,000 AFY; and therefore, the District's annual local yield between 2020 and 2030 is 42.7% of 5,000 AFY, or 2,135 AFY. Full water rights are expected to return once the dam repair is completed.

As discussed in **Section 6.1**, the District and SFID jointly own and operate the Badger Plant, where local water supplied from Lake Hodges and imported raw water purchased from SDCWA is treated. In general, local Lake Hodges water is more challenging to treat than imported water due to water quality issues associated with eutrophication in the summer and heavy runoff in the winter. Lake Hodges water is conveyed to the District's San Dieguito Reservoir, which has 883 AF of storage capacity, where some pre-treatment takes place prior to delivery to the Badger Plant. Enhancements to the Badger Plant, and associated San Dieguito Reservoir have improved the ability to treat water under more challenging conditions and have increased the ability to use this local water supply instead of imported water. Over the past five years, nearly 40% of the District's total supply came from local sources.

6.4 Stormwater

The District does not utilize stormwater directly as part of its water supply portfolio. It does purchase recycled water from the San Elijo Water Reclamation Facility (SEWRF), which has a stormwater recovery system that contributes to its recycled water supplies. The SEWRF is located in Cardiff and is owned and operated by the San Elijo Joint Powers Authority (SEJPA). The stormwater recovery system has recovered approximately 5 AFY of urban runoff for treatment at the SEWRF. The SEJPA is working to expand its capacity to collect stormwater which is anticipated to lead to increased stormwater recovery in the future.

6.5 Wastewater and Recycled Water

The District has supplied recycled water to its customers since August of 2000 and currently purchases approximately 650-700 AFY of recycled water in an effort to reduce its dependence on imported water. The District purchases its recycled water from the SEWRF, which is equipped with tertiary facilities to treat wastewater for recycled water use. Wastewater within the District's service area is collected by three agencies: the Encinitas Sanitary Division (ESD), the Leucadia Wastewater District (LWWD), and the Cardiff Sanitary Division (CSD). The collected wastewater is delivered to and treated at the Encina Water Pollution Control Facility (EWPCF) and the SEWRF. Some of the treated wastewater is used as recycled water, while the remainder is discharged to an ocean outfall.

6.1.1 Recycled Water Coordination

CWC 10633

> *The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area…*

Wastewater within the District is collected by three sanitary agencies:

- Encinitas Sanitary Division (ESD)
- Leucadia Wastewater District (LWWD)
- Cardiff Sanitary Division (CSD)

Wastewater collected within the District is treated at two treatment facilities:

- San Elijo Water Reclamation Facility (SEWRF)
- Encina Water Pollution Control Facility (EWPCF)

The SEWRF treats over 50% of the wastewater to tertiary standards for recycled water use. The District purchases recycled water treated at the SEWRF.

The EWPCF pumps a small portion of treated secondary effluent from the EWPCF to two water reclamation facilities for further treatment:

- Carlsbad Water Recycling Facility (Carlsbad WRF)
- Gafner Water Recycling Facility (Gafner WRF)

6.1.2 Wastewater Collection, Treatment, and Disposal

CWC 10633

> *(a) (Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*

CWC 10633

> *(b) (Describe) the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.*

The District provides potable water and recycled water to communities in Old Encinitas, Leucadia, Cardiff, and portions of New Encinitas. Wastewater from these areas is collected by ESD, CSD, and LWWD. Wastewater collected in the District's service area is treated at the EWPCF, owned and operated by Encina Wastewater Authority (EWA), and the SEWRF, owned and operated by the SEJPA. Secondary treated wastewater from the EWPCF is conveyed to Carlsbad WRF and Gafner WRF for tertiary treatment and used for recycled water.

Encinitas Sanitary Division (ESD)

The ESD, a division of the City of Encinitas, serves approximately 16,500 residents within a 3 square-mile service area. ESD's service area covers the west-central portion of the City of Encinitas, including the communities of Old Encinitas, portions of Leucadia, and New Encinitas. There are approximately 39 miles of sewer mains and 475 manholes in the ESD's collection system. Wastewater collected by ESD is generated primarily from residential users and some light commercial users within the downtown area. Approximately one third of wastewater within the District's service area is collected by ESD and delivered to the EWPCF for treatment.

Cardiff Sanitary Division (CSD)

The CSD, a division of the City of Encinitas, serves approximately 19,600 residents within a 12 square-mile service area. CSD's service area covers the southern and eastern portions of the City of Encinitas, including the communities of Cardiff, Olivenhain, portions of the Rancho Santa Fe Community Services District, and portions of the City of Solana Beach. There are approximately 84 miles of sewer mains and 600 manholes in the CSD's collection system. Wastewater collected by the CSD is generated primarily from residential units and some light commercial users such as stores, restaurants, offices, and medical buildings, including Scripps Hospital. Approximately one third of wastewater from the District's service area is collected from CSD and pumped or conveyed to the SEWRF for treatment.

Leucadia Wastewater District (LWWD)

The LWWD, a member of the Encina Joint Powers Authority (JPA), serves a 16 square-mile service area that covers the remaining portions of the City of Encinitas, including communities in Leucadia, New Encinitas, La Costa, and Carlsbad. LWWD collects approximately one third of wastewater from the District's service area, which is then pumped or conveyed to the EWPCF for treatment. LWWD owns approximately 20% of the treatment capacity at the EWPCF, or approximately 8,070 AFY, and also owns and operates the Gafner WRF to treat secondary effluent from the EWCPF to tertiary standards for recycled water use. LWWD transports an average of 4.5 MGD to the EWPCF.

Encina Wastewater Authority (EWA)

The EWA is a joint powers authority that operates and maintains the EWPCF, an ocean outfall, a biosolids facility, and two lift stations, located in Carlsbad. EWA is owned by six public agencies governed by a Joint Powers Agreement, pursuant to which owners share in the operational and management costs of the EWA. The six member agencies of EWA are the Buena Sanitation District, City of Carlsbad, City of Encinitas, LWWD, Vallecitos Water District, and the City of Vista. Each EWA member agency has capacity rights to the EWPCF and ocean outfall system. The City of Encinitas is allowed to deliver approximately 2,018 AFY of wastewater to the EWPCF and the outfall, with a peaking factor below 2.76.

Encina Water Pollution Control Facility (EWPCF)

The EWPCF provides full secondary treatment, sludge handling, and disposal through a deep ocean outfall. Some treated secondary effluent from EWPCF is delivered to either the Carlsbad WRF or the Gafner WRF for further treatment to tertiary standards for recycled water use. The EWPCF is a conventional activated sludge wastewater treatment plant with a treatment capacity of 45,396 AFY of liquid and 48,759 AFY of solids.

The EWPCF produces about 5,600 AFY (approximately 5 MGD) of recycled water onsite, which is used in the plant in lieu of purchased potable water. The recycled water is used for washing down equipment, irrigating landscaping, co-generation engine cooling, and odor control.

Carlsbad Water Recycling Facility Reclamation Plant (Carlsbad WRF)

EWA staff operate the Carlsbad WRF which is located adjacent to the EWPCF. Secondary effluent from the Encina WPCF is diverted from the ocean outfall and delivered to the Carlsbad WRF for tertiary treatment. The construction of this 4 MGD recycled water plant was completed in 2005, and the plant was recently upgraded to handle 7 MGD as part of an expansion project that was completed in November of 2016. The Carlsbad WRF supplies recycled water to the southwestern part of the City of Carlsbad.

Gafner Water Recycling Facility (Gafner WRF)

The Gafner WRF is owned and operated by the LWWD. As LWWD's service area population grew, it joined the Encina Joint Powers Authority in 1971 and became a partial owner of the EWPCF. In 1993, the LWWD upgraded the Gafner WRF to meet new regulatory standards for recycled water. LWWD opted to decommission the original primary and secondary facilities in 1997 and began piping treated secondary effluent from the EWPCF to the Gafner WRF. The Gafner WRF has a total production capacity of up to 1.0 MGD (1,120 AFY). However, it currently produces 80-100 MG of recycled water per year (672 AFY) to meet demand to irrigate the Omni La Costa Resort & Spa Golf Course, which is located in Carlsbad, outside of the District's service area boundary.

San Elijo Joint Powers Authority (SEJPA)

The SEJPA is a joint powers authority that owns and operates the SEWRF located in Cardiff. The SEJPA also operates and maintains nine wastewater lift stations and shares ownership of the San Elijo Ocean Outfall with the City of Escondido. The SEJPA serves an approximately 19 square-mile area across the City of Solana Beach, and portions of the City of Encinitas and community of Rancho Santa Fe. The member agencies of the SEJPA include the City of Encinitas and the City of Solana Beach. Each SEJPA member agency has 50% treatment capacity in the SEWRF. The Rancho Santa Fe Community Services District leases 280 AFY capacity and the City of Del Mar leases 672 AFY capacity. The SEWRF has a capacity of 5,885 AFY; therefore, the City of Encinitas is allowed to deliver 2,802 AFY of wastewater to the plant for treatment.

San Elijo Water Reclamation Facility (SEWRF)

The SEWRF has the capacity to treat and discharge up to 3.02 MGD of tertiary treated wastewater to recycled water users and up to 5.25 MGD (or 5,885 AFY) of secondary treated wastewater to the Pacific Ocean through the San Elijo Outfall, 1.5 miles offshore. The SEWRF collects primarily domestic wastewater from an approximately 19 square-mile area across the City of Solana Beach, and portions of the City of Encinitas, the City of Del Mar, and the community of Rancho Santa

Fe. Influent wastewater is conveyed to the WRF through three force mains and one gravity main. Flow from Cardiff enters the WRF from the north and west; flow from Solana Beach enters the WRF from the south; and flow from the east is conveyed to the WRF through the Olivenhain force main. Wastewater flows from each influent force main are metered and recorded separately before the influent streams are combined and discharged into an influent junction box.

The tertiary facilities of the plant were completed in August of 2000 and were capable of producing up to 7.61 AF of Title 22 recycled water per day. In 2013, Microfiltration (MF) and Reverse Osmosis (RO) were added to the plant's tertiary treatment processes and the plant's recycled water production capacity increased to 9.27 AF per day. The SEWRF produces approximately 1,500 to 1,700 AFY of recycled water. Ultimately, the tertiary facilities may be expanded to treat all of the influent wastewater to the plant.

Recycled water produced by the plant's tertiary facilities is sold to the District, SFID, the City of Del Mar (Del Mar), and Olivenhain Municipal Water District (OWMD). The District's 0.6 MG Oak Crest Park Reservoir is used to store recycled water.

Wastewater that is not recycled through the tertiary treatment process is discharged to the Pacific Ocean through the 8,000-foot-long San Elijo Ocean Outfall. The SEJPA discharges approximately 1,645 AFY of secondary effluent to the ocean outfall, which is approximately 50% of the current influent flow.

Table 6-2 summarizes the wastewater collected within the District's service area by each sanitary agency. The District does not treat its wastewater directly to tertiary standards for recycled water. Instead, wastewater collected within the District's service area is combined with wastewater from other areas outside of its service area, such as the Cities of Carlsbad and Solana Beach, and is treated at different treatment plants. **Table 6-3** summarizes the wastewater treated and discharged from each treatment facility.

Table 6-2: Wastewater Collected Within Service Area (2020)

DWR Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2020 service area covered by wastewater collection system *(optional)*					
	Percentage of 2020 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2020	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party?
Cardiff Sanitary Division (CSD)	Estimated	889	San Elijo Joint Powers Authority (SEJPA)	San Elijo Water Reclamation Facility (SEWRF)	Yes	No
Encinitas Sanitary Division (ESD)	Estimated	1,064	Encina Wastewater Authority (EWA)	Encina Water Pollution Control Facility (EWPCF)	No	Yes
Leucadia Wastewater District (LWWD)	Estimated	1,077	Encina Wastewater Authority (EWA)	Encina Water Pollution Control Facility (EWPCF)	No	Yes
Total Wastewater Collected from Service Area in 2020:		3,030				

Table 6-3: Wastewater Treated and Discharged Within Service Area (2020)

DWR Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020										
☐	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.									
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2020 Volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area[1]	Recycled Outside of Service Area
San Elijo Water Reclamation Facility (SEWRF)	Cardiff By the Sea	Within the District's service area, a beach community located in City of Encinitas		Ocean outfall	Yes	Tertiary	3,320	1,645	642	859
Encina Water Pollution Control Facility (EWPCF)	City of Carlsbad	North adjacent to the City of Encinitas		Ocean outfall	Yes	Secondary, Undisinfected	11,647	11,340	0	7,834
Total Wastewater Generated in UWMP Area in 2020							14,967	12,985	642	8,693
NOTES: [1]In 2020, an additional 171 AF of recycled water was used at the SEWRF for the in-plant treatment process washdown. [2]In-stream flow permit requirement is not applicable to the SEWRF and EWPCF.										

6.1.3 Recycled Water System

CWC 10633

> *(c) (Describe) the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*

The District's wastewater is treated at the SEWRF and the EWPCF. The District purchases recycled water from SEJPA to supply its customers as discussed in **Section 6.1.2**. SEJPA is responsible for the operation and maintenance of the recycled water treatment plant and the distribution system up to the point of delivery, and the District is responsible for recycled water metering and customer billing.

Recycled water produced onsite at the EWPCF is used in the plant, and approximately 250 AFY of the secondary treated effluent is delivered to the Gafner WRF for tertiary treatment. The tertiary treated water is sold by LWWD to the Omni La Costa Resort & Spa Golf Course for irrigation purposes. The resort is located within the City of Carlsbad, outside of the District's service area. The agencies that are involved in the recycled water system collection, treatment, and distribution processes are described in **Section 6.1.2** above.

A map of the Recycled Water System infrastructure within the District's service area is included as **Figure 4** in **Chapter 3 – System Description** (**Section 3.2**).

6.1.4 Potential, Current, and Projected Recycled Water Uses

CWC 10633

> *(d) (Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.*

CWC 10633

> *(e) (Describe) the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.*

Currently, the District provides recycled water to the Encinitas Ranch Golf Course, landscaped traffic medians, homeowner association (HOA) common areas, and a number of parks within the City of Encinitas. In 2020, The District supplied 642 AF of recycled water to its customers. **Table 6-4** provides the current and projected beneficial use information for recycled water deliveries within the District's service area. In order to be conservative regarding water demand and supply projections, **Table 6-4** only reflects current recycled water usage in the District's service area as supplied by the SEWRF. As described later in this Chapter (refer to **Section 6.8**), the District is actively pursuing near and long-term expansion of recycled water and other water supplies (potable reuse). For planning purposes, the District is projecting that recycled water demands will at least remain at a consistent 700 AFY through 2045.

Table 6-4: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

DWR Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area										
Name of Agency Producing (Treating) the Recycled Water:			San Elijo Joint Powers Authority							
Name of Agency Operating the Recycled Water Distribution System:			San Elijo Joint Powers Authority							
Supplemental Water Added in 2020			2.63 AF							
Source of 2020 Supplemental Water			San Dieguito Water District							
Beneficial Use Type	General Description of 2020 Uses	Potential Beneficial Uses of Recycled Water	Amount of Potential Uses of Recycled Water (Quantity)	Level of Treatment	2020[2]	2025	2030	2035	2040	2045
Agricultural irrigation		Greenhouses	N/A[1]							
Landscape irrigation (excludes golf courses)	Medians, City parks, schools, HOAs	Business parks, HOAs, multi-family housing	90	Tertiary	368	400	400	400	400	400
Golf course irrigation	Encinitas Ranch Golf Course	N/A	N/A	Tertiary	274	300	300	300	300	300
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)*										
Surface water augmentation (IPR)*										
Direct potable reuse										
Other *(Provide General Description)*										
				Total:	642	700	700	700	700	700

NOTES: [1]Potential Agricultural recycled water use is incorporated into 90 AF shown for landscape irrigation. [2]In 2020, an additional 171 AF of recycled water was used at the SEWRF for the in-plant treatment process washdown. The SEWRF typically utilizes approximately 100 AFY of recycled water for in-plant processes.

According to the California Code of Regulations (CCR), Title 22, Section 60301.200, landscape irrigation includes irrigation of streetscapes, residences, parks, schools, cemeteries, churches, slope protection, or public facilities. The District provides recycled water to most of the sectors mentioned above.

Current Uses

The District irrigates areas along freeway and road medians with recycled water. The Interstate 5 corridor through the City of Encinitas has been converted to recycled water use by California Department of Transportation (CalTrans). Various road medians within the City of Encinitas are also using recycled water as their source of irrigation. The District continues to condition approval of City of Encinitas projects with use of recycled water for irrigation.

City parks and school yards have also converted to recycled water use, such as the City of Encinitas Paul Ecke Sports Park and the Encinitas Community Park. The Encinitas Community and Senior Center, completed in 2001, incorporated recycled water for landscape irrigation. Quail Gardens is one of the District's most important and earliest recycled water users; for the past 15-20 years, the garden has utilized recycled water to successfully grow special plants that are very sensitive to water quality. Schools within the District, including the San Dieguito Academy School, Ocean Knoll Elementary School, Oak Crest Middle School, Sunset Continuation School, and the Ada Harris School have also converted their field areas to irrigate with recycled water. Additionally, the District has converted commercial land use landscape areas and HOAs to recycled water use. The many commercial areas within the Saxony Road service line utilize recycled water for their landscaped areas as well as various HOAs.

Golf course irrigation has been classified as a separate category from landscape irrigation. The Encinitas Ranch Golf Course (ERGC) is the only golf course within the District and has been irrigating with recycled water since 2000. The ERGC is the largest user of recycled water, with a demand of approximately 300 AFY. The ERGC pumps the recycled water that is used for irrigation from storage in a feature pond on the golf course.

Potential and Projected Uses

As outlined in the District's 2016 Water Sustainability Plan, the District plans to expand its recycled water use by exploring opportunities to convert existing potable water customers to recycled water and exploring opportunities for economically-feasible alternative reuse water supplies. In 2017, the District worked with the SEJPA on a recycled water main extension that allowed the Encinitas Ranch HOA to convert their common area landscaping to use recycled water (approximately 50 AFY). Several other existing potable water customers located adjacent to recycled water mains have been identified by the District as good candidates for conversion to recycled water. Between 2015 and 2020, the District converted some of these customers to recycled water, including Silverado Senior Living and Quail Park HOA which together used 5 AF of recycled water in 2020. The District is working to convert additional customers to recycled water, which could convert up to 90 AFY of water use from potable to recycled water combined, including Dramm & Echter Greenhouse, North Coast Business Park, Cardiff Apartments, and West Hampton Cove HOA.

The District is also planning to expand its recycled water use to include agricultural irrigation. Even though the agricultural market within the District has steadily declined, there is still a potential for recycled water use within this category. Current agricultural customers have

expressed interest in the use of recycled water, but they have also expressed concerns regarding recycled water quality and its effects on their products. The District and the SEJPA will work closely with agricultural customers to study the effects of recycled water on various agricultural products, and such studies should increase the confidence of agricultural customers in recycled water.

Based on the *Recycled Water Optimization and Expansion Study* conducted by SEJPA in 2005, the District estimated that its recycled water demand could potentially be increased to 856 AFY. Since the study was conducted, the recycled water projections have been revised. In 2020, recycled water demand was 642 AFY and by 2025 it is projected to increase to 700 AFY. The District projects its recycled water demand will remain at 700 AFY between 2025 through 2045.

In the 2015 UWMP, the District projected 730 AFY of recycled water use in 2020 compared to the actual recycled water use of 642 AFY in 2020, which was 12% less than what was projected. **Table 6-5** compares the 2015 recycled water use projection for 2020 with the actual recycled water use for 2020 based on use type. Actual recycled water demand may have been lower than projections because of overall water use efficiencies in landscape and golf course irrigation practices and higher than average rainfall in 2020, reducing irrigation needs.

Table 6-5: Comparison Between 2015 and 2020 Recycled Water Use Projections

DWR Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2020 Actual		
Use Type	2015 Projection for 2020	2020 Actual Use[1]
Agricultural irrigation		
Landscape irrigation (excludes golf courses)	430	368
Golf course irrigation	300	274
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Surface water augmentation (IPR)		
Direct potable reuse		
Other		
Total	730	642
NOTES: [1]In 2020, an additional 171 AF of recycled water was used at the SEWRF for the in-plant treatment process washdown. The SEWRF typically utilizes approximately 100 AFY of recycled water for in-plant processes.		

6.1.5 Actions to Encourage and Optimize Future Recycled Water Use

CWC 10633

> *(g) (Provide) a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.*

The District and SEJPA have offered several incentives in an attempt to attract new recycled water customers, including setting recycled water prices 20% below the cost of potable water (subject to change based on the new water rate study that is currently in development), eliminating capacity fees for recycled water meters, and offering low-interest loans and guaranteed supply during droughts. As discussed in **Section 6.1.4**, District staff are working closely with several existing potable water customers to convert them to recycled water.

The *Recycled Water Optimization and Expansion Study* (SEJPA, 2005), discussed in **Section 6.1.4**, identified several recycled water system improvements to enhance SEJPA's ability to produce and distribute additional recycled water. The improvements identified added flexibility and improved system reliability, thus making recycled water conversion more attractive to customers.

The SEWRF, discussed in **Section 6.1.2**, had an initial capacity of approximately 2,242 AFY when it was first put online in 1966 and has been upgraded to currently treat up to 3,383 AFY of recycled water. The SEWRF performed a facility condition assessment in 2015 which found the recycled water facilities to be in fairly good condition and recommended a few upgrades to the Advanced Water Purification (AWP) facility and the recycled water distribution pumps to ensure proper operation and production of high-quality recycled water. Improvements that were recommended for the AWP included installation of additional membranes to the reverse osmosis skid to increase capacity by 560 AFY. The condition assessment also indicated that SEJPA would investigate and implement means to increase the chlorine contact basin (CCB) capacity in order to increase production of recycled water. Finally, SEJPA indicated that it would investigate means to increase on-site storage for either recycled water or a future potable water supply to support future potential projects such as construction of a potable reuse facility and a brackish water treatment facility.

Table 6-6: Comparison Between 2015 and 2020 Recycled Water Use Projections

DWR Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
Section 6.1.5	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Incentives for Recycled Water Customers	Offer incentives such as low recycled water price, no capacity fees on recycled water meters, low-interest loans, etc. to attract more recycled water customers	2020-2035	50
		Total	50

6.6 Desalinated Water Opportunities

CWC 10631

> *(g) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.*

On December 14, 2015, a 50 MGD seawater desalination plant, the Claude "Bud" Lewis Carlsbad Desalination Plant, (Carlsbad Desal Plant) at the Encina Power Station became operational in the City of Carlsbad. SDCWA approved a 30-year Water Purchase Agreement to purchase up to 56,000 AFY of desalinated seawater from the Carlsbad Desal Plant. In 2020, the SDCWA purchased 35,280 AF of desalinated water, which was equivalent to about 8% of the San Diego region's actual water demand in 2020. During any normal year between 2025 and 2045, the SDCWA projects it will purchase approximately 50,000 AF of desalinated water. The District purchases water from SDCWA, which includes desalinated seawater (blended with other SDCWA supplies) but does not plan to directly purchase desalinated water at this time.

6.7 Exchanges or Transfers

CWC 10631

> *(c) Describe the opportunities for exchanges or transfers of water on a short- term or long-term basis.*

The District maintains emergency interconnections and agreements with OMWD to enhance supply reliability under emergency conditions. The District does not regularly exchange or transfer water to other agencies.

6.8 Future Water Projects

CWC 10631

> *(f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use… The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

Future water projects that affect the District's supply include the North County One Water Program and the Lake Hodges Dam improvements. Future water projects are categorized as in progress, planned, verifiable, or conceptual supplies. "Verifiable" projects are those with substantial evidence and adequate documentation regarding implementation and supply use, while "conceptual" projects are those considered to be in the pre-planning and pre-feasibility analysis phases. These conceptual projects have not progressed to a point where the project yield can be factored into reliability assessments or uncertainty planning for this 2020 UWMP.

North County One Water Program (Conceptual)**:** The District has been working as part of a collaborative group (the North San Diego Water Reuse Coalition) to analyze potential methods and projects that could maximize water reuse in the North County area of San Diego. Through these efforts, the future planning of recycled water in the District's service area has changed to focus on provision of a potential combination of recycled water and potable reuse water, and also

to identify potential sources of recycled water beyond supplies from the SEWRF. This collaboration led to the completion of the *Encina Wastewater Authority Water Reuse Feasibility Study* in 2018 and the *Recycled Water Expansion Plan Development Study* in 2018 and 2019, respectively. Based on the findings of these studies, the District is collaborating with SFID, SEJPA, OMWD, and LWWD to explore the feasibility of implementing the North County One Water Program to develop potable reuse supplies.

The wastewater flows and facilities from two coastal treatment facilities in North San Diego County, the EWPCF and the SEWRF, represent a unique opportunity for large-scale production of purified recycled water suitable for potable reuse. The EWPCF in the City of Carlsbad could be upgraded to accommodate an advanced water purification facility (AWPF) that would produce an estimated 17,800 AFY to 22,200 AFY or more of purified recycled water by 2035. The EWPCF has key assets available for production of purified water such as an ocean outfall, available land for advanced treatment, treated secondary effluent, and technically capable staff (refer to the *Encina Wastewater Authority Water Reuse Feasibility Study* completed in 2018).

The SEWRF in the Cardiff area within the City of Encinitas, California could be expanded to accommodate an AWPF that would produce an estimated 400 to 3,100 AFY of purified recycled water by 2035. The SEWRF also has key assets available for production of purified water such as an ocean outfall, available land for advanced treatment, treated secondary effluent, and technically capable staff (refer to the *Recycled Water Expansion Plant Development Study* developed in 2019 in partnership with the District, SFID, SEJPA, OMWD, and LWWD).

EWA and SEJPA have been working with multiple local water and wastewater agencies to explore the feasibility of developing the North County One Water Program, building on over a decade of collaborative efforts in the region by the North San Diego Water Reuse Coalition. If the North County One Water Program is determined to be feasible, it could supply an estimated 18,000 AFY to 25,000 AFY or more of purified recycled water overall for potable reuse within San Diego County by 2035. The District is supportive of this conceptual future project and would be interested in purchasing up to 2,000 AFY of recycled water if the project is implemented. This conceptual future project has been discussed qualitatively in **Table 6-7**.

Hodges Dam Improvements (In Progress): As discussed in **Section 6.3**, the Lake Hodges Reservoir storage capacity has been temporarily reduced due to the seismic downgrading of the dam. For safety reasons, the California DOSD enacted a restriction on September 4, 2019 that water level at Hodges Reservoir should not exceed 295 feet, 20 feet below spillway elevation. The City of San Diego is performing a condition assessment and seismic stability analysis of the Lake Hodges dam to implement dam performance and safety improvements. The impact of this planned dam improvement/upgrade project on supply and demand is already accounted for in **Table 6-1** and therefore is not included in **Table 6-7**.

Table 6-7: Expected Future Water Supply Projects or Programs

DWR Table 6-7 Retail: Expected Future Water Supply Projects or Programs	
☒	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.
Section 6.8	Provide page location of narrative in the UWMP
NOTES: A conceptual indirect potable reuse (IPR) project [North County One Water Program] is being explored and may provide up to 2,000 AFY of additional local water supply to the District beginning in 2035, thereby reducing the District's annual demands on SDCWA by approximately 2,000 AFY.	

6.9 Summary of Existing and Planned Sources of Water

CWC 10631

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision 10631(a)...

The District provides potable water and recycled water to its customers. Potable water sources include imported treated and raw water purchased from the SDCWA and local surface water from Lake Hodges. Imported raw water and surface water from Lake Hodges are treated at the R.E. Badger Filtration Plant. The District purchases recycled water from the SEJPA. **Table 6-8** summarizes the actual source and volume of water for 2020.

Table 6-8: Actual Water Supplies (2020)

DWR Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2020		
Description	Additional Detail on Water Supply	Actual Volume	Water Quality	Total Right or Safe Yield *(optional)*
Purchased or Imported Water		3,127	Drinking Water	
Supply from Storage		2,555	Drinking Water	
Recycled Water		642	Recycled Water	
Total		6,324		

Table 6-9 summarizes the projected source and volume of water for 2025 through 2045. In order to be conservative regarding water demand and supply projections, **Table 6-9** does not include the North County One Water Program because it is still considered a conceptual future water project. As demands increase, the District is able to purchase additional water from SDCWA to meet demands not met with local supplies. Between 2025 and 2045, the District projects its total water supply will increase from 6,496 AFY to 7,311 AFY.

Table 6-9: Projected Water Supplies (2025-2045)

DWR Submittal Table 6-9 Retail: Water Supplies — Projected										
Description	2025		2030		2035		2040		2045	
	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Purchased or Imported Water	3,661		4,021		3,809		3,970		4,177	
Supply from Storage	2,135		2,135		2,434		2,434		2,434	
Recycled Water	700		700		700		700		700	
Total	6,496		6,856		6,943		7,103		7,311	
NOTES: A conceptual indirect potable reuse (IPR) project [North County One Water Program] is being explored and may provide up to 2,000 AFY of additional local water supply to the District beginning in 2035, thereby reducing the District's annual demands on SDCWA by approximately 2,000 AFY.										

6.10 Climate Change Impacts to Supply

The District's water supply portfolio includes local surface water from Lake Hodges and imported water from the SDCWA, which is sourced from the Colorado River Aqueduct and from the Delta via the State Water Project (SWP), and desalinated seawater from the SDCWA. According to San Diego's 2019 IRWM Plan Update, climate change may affect the water supply in the District and the greater San Diego region. Climate change may cause increased frequency of droughts, seawater intrusion, changes in precipitation volumes and timing, altered fire and weather regimes, and potential changes in the availability of imported water supplies. Climate change may also impact the beneficial uses of water as well as water quality. In addition, uncertainties caused by climate changes complicate mitigation and emergency response planning.

Hydrologic conditions in the San Diego IRWM Region, in all of California, and in the Colorado River Basin, all of which impact the District's water supply, will likely be altered as a result of global climate change. Key changes in hydrologic conditions outlined by the IRWM Plan that could affect the supplies for the District include but are not limited to:

- ***Snowpack Change*** – California is heavily dependent on snowpack in the Sierra Nevada Mountains. Reduction in snowpack would result in decreased stored water available to the state and could adversely impact imported water available to the District and the San Diego IRWM region.
- ***Hydrologic Patterns*** – Storms and precipitation patterns have changed over the past century throughout California. Climate change could lead to further changes in precipitation patterns and result in varying water availability in the state and the region. Flood management issues, increased erosion, and water quality impacts could occur with increased frequency and intensity of storm events.
- ***Water Temperatures*** – Increased air temperatures may result in increased reservoir water temperatures, adversely affecting regional water quality and the District's imported raw

water. Increased air temperatures would also lead to greater evaporation of reservoirs and lakes, higher demand in energy for cooling, and greater demand for agriculture.

Snowpack Change

MWD indicated in its Draft 2020 UWMP that the SWP and CRA supplies have experienced dramatic swings in annual hydrologic conditions, which are largely affected by snowpack. The earliest and lowest snowpack peak in recorded history occurred in 2015 during the recent severe drought, where snowpack was recorded at only 17% of the traditional snowpack peak on April 1st, which resulted in decreased supply. Dry conditions have returned in 2020, which began with a dry January and the driest February on record. In addition to below average precipitation, the Northern Sierra Nevada snowpack peaked in April of 2020 at only 66% of the April 1st average measurement. The Colorado River Basin has also been affected by variability in hydrologic conditions and snowpack. In 2020, the Upper Colorado River Basin snowpack peaked in April at 107% of average; however, April through July runoff was observed at just 52% of average due to hot and dry conditions in the late spring and early summer. This instance is an example of a potential change in relationship between precipitation and annual runoff. At the close of 2020, system storage was at or near its lowest since 2000, meaning that MWD has less water available to buffer dry conditions.

The overall storage levels in the Colorado River system have steadily decreased over time, increasing the likelihood of water supply shortages in the future. The 2019 IRWM Plan projected that imported water supply would increase by approximately 20% to 25%, which would significantly impact the available water supply of the San Diego region. Decrease in imported water supply was identified as the highest priority issue. The water supplies from the SWP are also affected by lower snowpack levels statewide. MWD only received 20% of its contracted water supply from the SWP in 2015. Up to a 25% decrease is projected in water supply from the SWP in the future.

Hydrologic Patterns

Precipitation patterns throughout Southern California have changed significantly over the past few decades. Droughts have become increasingly more severe and longer lasting and have resulted in less rainfall events, which in turn results in less runoff captured in Lake Hodges. Local surface water supply from Lake Hodges has steadily declined over the past few years, meaning the District needs to purchase more imported water from the SDCWA and its supply sources, the Colorado River and the SWP. As discussed above, the overall storage levels in the Colorado River System have decreased and are expected to continue to decrease, thus further decreasing water supply availability in the future. Fewer rainfall events may also cause higher pollutant concentration in local runoff, which can negatively impact water quality. The District treats local surface water and imported raw water to drinking water levels before distribution to ensure safe drinking water is provided to its customers.

Water Temperatures

Water quality and quantity of the District's local surface water supply reservoir, Lake Hodges, may be negatively impacted by increased air and water temperatures caused by climate change. Lake Hodges is vulnerable to water quality changes and water supply reductions driven by increased evaporation rates, higher demand in energy for cooling, and greater demand for agriculture.

To plan for the anticipated reduction in water supply availability due to climate change, efforts have been taken to increase water supply reliability on both a regional and local level. As discussed in **Section 6.6**, SDCWA began purchasing desalinated water from the Carlsbad Desal Plant in 2015, which met about 8% of the San Diego region's actual water demand in 2020. This drought-resistant source of supply will continue to reduce the San Diego region's dependency on imported water and will also reduce the potential impacts to water supply availability during future droughts. On a local level, as discussed in **Section 6.1.4**, the District continues to seek opportunities to convert existing potable water customers to recycled water customers, thus utilizing a local drought-proof supply in place of imported water. The District is collaborating with SFID, SEJPA, OMWD, and LWWD to implement the North County One Water Program (refer to **Section 6.8**) to develop potable reuse supplies. The District is supportive of the North County One Water Program and plans to purchase up to 2,000 AFY of potable reuse water, thereby supplying its customers with an additional local, drought-proof water supply source by 2030. Finally, as discussed in **Chapter 9 – Demand Management Measures**, the District continues to participate in water conservation programs that have proven to reduce customers' water consumption over time.

6.11 Energy Intensity of Supplies

The District elected to estimate the energy intensity of its potable supplies, using Appendix O of the Draft Guidebook. Water energy intensity (EI) is the total amount of energy expended on a per AF basis to take water from the location the District acquires it to the point of delivery. Thus, EI includes conveyance, extraction, treatment, placing water into and taking it from storage, and distribution. The District's water EI only accounts for the water management processes occurring within its operational control; therefore, energy use associated with the extraction and treatment and conveyance of wholesale water to the District's points of diversion are not included.

Because the District receives potable water from SDCWA, and this water is already treated prior to entering the District's distribution system, energy demands for the District's potable system are limited to the energy requirements for distribution and local storage. The District's local surface water supply is treated at the Badger Plant, which is jointly owned by the District and SFID; however, since the Badger Plant is located within SFID's service area, water is treated prior to entering the District's distribution system. Energy intensity of all the water treated at the Badger Plant is included in SFID's 2020 UWMP. Treated water is conveyed from the Badger Plant to the District's distribution system through gravity pipelines and therefore no energy is required.

Moreover, the District's entire distribution system is gravity-fed with the exception of one emergency pump station that was built to distribute water to refill a reservoir in the District's highest pressure zone (520 feet). This emergency pump station has never been used for supply since it was built in 1998; however, the District operates the three pumps at this station for approximately five minutes per week to ensure they are running properly. After each run cycle, the pumped waters are returned to the system.

Using energy billing data from the San Diego Gas & Electric (SDG&E) for fiscal year 2020 (July 1, 2019 through June 30, 2020), the District estimated total energy use at its emergency pump station was 2,883 kilowatt hours (kWh). During this same period, the District pumped approximately 2.21 AF of water. The District elected to report its energy intensity using DWR's

recommended water supply process approach. The energy intensity calculations are provided in **Appendix O** of this Plan.

Chapter 7 Water Supply Reliability Assessment

A water supplier faces a water shortage when available water supplies are less than projected demands. Although water suppliers conduct extensive long-term planning to have enough available supplies to meet customers' demands, several external factors can cause unexpected and unanticipated water supply shortages such as severe drought, earthquakes, catastrophic power outages, water quality or climatic constraints, sabotage, and other legal and environmental challenges. CWC 10635(a) requires suppliers to include an assessment of water supply reliability in this UWMP to plan for potential water shortages during varying conditions that can cause reductions in available supply.

During the recent drought, severely dry conditions persisted throughout Southern California from 2012 – 2017 and compelled the District and other regional water suppliers to take supply augmentation and demand reduction actions to ensure adequate supply was available to meet demand. This chapter describes the District's supply reliability assessment, which includes a new requirement to conduct a Drought Risk Assessment (DRA) that will enable the District to evaluate risk under a severe drought period lasting for the next five consecutive years. The assessment also provides a rational basis for future decision-making related to supply management, demand management, and project development within the District.

This Chapter contains information related to the District's water supply reliability assessment and includes the following sections:

- Constraints on Water Sources
- Reliability by Type of Year
- Supply and Demand Assessment
- Five-Year Drought Risk Assessment
- Regional Supply Reliability
- Water Sustainability Plan

7.1 Constraints on Water Sources

CWC 10631

(b)(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described more in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

(c)(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

CWC 10634

The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

The District's water supply portfolio comprises purchased water from the SDCWA (including imported water and desalinated seawater), local surface water from Lake Hodges, and recycled water purchased from the SEJPA, which are discussed in more detail in **Chapter 6 – System**

Supplies. Water quantity and quality constraints associated with the District's supply sources are described below.

Local Surface Water Supply Constraints

Local water supplies from Lake Hodges are especially vulnerable to drought conditions. Based upon its agreement with the City of San Diego, the District and SFID currently share 5,000 AFY of local raw water storage capacity in Lake Hodges; specific storage capacity for each agency is not defined. As discussed in **Chapter 6 – System Supplies**, shared rights between the District and SFID are expected to increase to 5,700 AFY upon completion of the Lake Hodges dam restoration project which is anticipated by 2030. The current 5,000 AFY shared allocation would satisfy the District's projected local supply needs under normal conditions; however, under drought conditions, the temporary reduction in Lake Hodges supplies may lead to the District not having enough water available in storage. In the event that local surface water storage in Lake Hodges is not sufficient to meet District needs, the District has the ability to purchase additional imported raw or treated water from the SDCWA. Given that local raw water is largely rainwater runoff, the reliability of water from Lake Hodges will vary based on regional precipitation amounts.

Local surface water has historically presented treatability issues with total organic compounds, coliform bacteria, iron, manganese, total dissolved solids, dissolved oxygen levels, Cryptosporidium sp. and Giardia sp., as well as algae. Water quality in Lake Hodges can vary significantly and considerable changes in concentrations of key parameters have been observed over short periods of time, particularly during or after storm events. During winter months, water quality challenges include high turbidity and organics loading, whereas algae blooms, iron, manganese, and sulfides typically create treatment challenges during the spring and summer. Although raw water quality at Lake Hodges is variable, all local surface water is treated at the Badger Plant and conforms to applicable drinking water standards.

In 2014, SDCWA, in conjunction with the City of San Diego, completed an evaluation of existing technologies to determine projects that could be implemented to improve the long-term water quality in Lake Hodges. SFID has been coordinating with the SDCWA and the City of San Diego to implement these projects, which are anticipated to improve the water quality in Lake Hodges and increase the usability of this water in the region. Improvements include the Lake Hodges Oxygenation System project that installed a speece cone in the reservoir in 2019, which injects oxygen into the sediment-water interface of the reservoir, reducing the production of algae and improving water quality.

Recycled Water Supply Constraints

Through a contract with the SEJPA, the District's local supply portfolio also comprises recycled water for non-potable irrigation demands. Unlike the District's Lake Hodges surface water supply, recycled water is considered "drought-proof" because it is typically not vulnerable to drought conditions. Recycled water purchased by the District is produced at the SEWRF through tertiary wastewater treatment processes. Wastewater discharges are generally not impacted by changes in climate or precipitation and are therefore considered drought-proof. SEJPA's tertiary treatment capacity is 3.0 MGD (3,362 AFY), while agencies purchasing recycled water from SEJPA project use less than 2,000 AFY combined. As such, SEJPA has sufficient tertiary treatment capacity to

increase recycled water deliveries to the District should recycled water demands increase during drought conditions.

Recycled water currently utilized within the District's service area meets all Title 22 standards for tertiary-treated water. In 2013, SEJPA completed upgrades to the SEWRF to include advanced water treatment with microfiltration and reverse osmosis. This advanced treatment process removes TDS from a portion of the recycled water, which is then blended with the tertiary-treated water to reduce overall salinity.

Purchased and Imported Water Supply Constraints

The District purchases water from the SDCWA to augment its local supplies. SDCWA purchases water from the Metropolitan Water District of Southern California (MWD), who imports water from the Colorado River Aqueduct (CRA) and the Delta through the State Water Project (SWP).

MWD Supplies

As part of its Draft 2020 UWMP, MWD completed a reliability assessment that identifies the potential risks and uncertainties that could affect reliability of their supplies. Because the District receives imported water from MWD through its purchases from SDCWA, potential risks to MWD's supplies (SWP and CRA) are also potential risks to the District's imported water supplies. A summary of the potential risks identified by MWD is provided below.

- **Risks Affecting Supplies**: Hydrologic conditions and environmental regulations can significantly impact MWD's imported water supplies. The SWP and CRA rely heavily on precipitation to replenish available supply storage. Over the past two decades, MWD has significantly increased its storage capabilities to include both dry-year and emergency storage. MWD developed this additional storage to plan for the risks that hydrologic variability, potential climate change, and environmental regulations pose to its supplies. The MWD also faces challenges with promoting more resilient, drought-proof supplies, including public perception of recycled water use and local community and environmental opposition to seawater desalination.
- **Risks Affecting Operations and Water Quality**: MWD's net energy use and costs are dominated by the pumping required to import water from the CRA and SWP systems. Since MWD does not have direct control over the SWP, it has focused its energy strategy on reducing energy use, costs, and greenhouse gas (GHG) emissions associated with the CRA operations. Reducing energy needs for the CRA operations and diversifying MWD's supply portfolio will lead to increased supply reliability. Water quality regulations and issues such as algae toxins, PFAS, and other constituents of emerging concern pose risks to the CRA and SWP supplies. High salinity is also a significant water quality issue associated with the CRA supplies. MWD relies on blending its CRA supplies with SWP water to mitigate for the higher-salinity CRA water. During recent periods of drought, MWD's SWP allocation has been substantially reduced, including to historical lows of 5% in 2014 and 20% in 2015, which affected blending operations. MWD's increased reliance on CRA water in 2014 and 2015 led to increased salinity in its blended imported water.
- **Risks Affecting Demands**: MWD recognizes that there are several potential risks associated with projecting demands. Although demand projections are informed by historical and current

data, there are still various factors that could contribute to unanticipated fluctuations in demands such as changes in population and economic growth, uncertainty in location of growth, uncertainty regarding housing stock and density, and changes in outdoor water use patterns.

- **Distribution System Water Losses**: Although the AWWA Water Audit methodology provides a tool to quantify real and apparent water system losses in a supplier's distribution system, there is still uncertainty because these water losses are estimated rather than measured. In addition to quantifying its system water losses from 2015 – 2019 in its 2020 UWMP, MWD completed a voluntary distribution system water loss assessment to estimate water losses associated with the treated distribution system and reservoir evaporation.
- **Climate Change:** Potential changes associated with climate change pose risks to supply reliability by adding uncertainty to the challenges of planning. Although the exact timing, magnitude, and regional impacts of such uncertainties remain unknown, researchers have identified several areas of concern for California water planners, including reduction in Sierra Nevada snowpack, increased intensity and frequency of extreme weather, prolonged droughts, water quality issues associated with increased occurrences of wildfires, changes in rainfall runoff patterns and amounts, and rising sea levels. Increasing supply reliability will mitigate the potential impacts of climate change.

SDCWA Supplies

The SDCWA is working to diversify its supplies and decrease its dependence on less reliable, imported water supplies from MWD over the next 25 years. The SDCWA's 2020 UWMP reports that forecasted imported water supply capabilities and stored water would be sufficient to meet expected demands under the single driest year and all five years of the multiple dry year hydrological scenarios. Investments that have been made by the SDCWA and its member agencies, such as providing additional carryover storage, are anticipated to help achieve reliability in dry years and multiple dry years. In the unanticipated event that shortages occur during multiple dry year periods, additional regional demand management measures consistent with the SDCWA's Water Shortage and Drought Response Plan (refer to **Chapter 8 – Water Shortage Contingency Planning**), will be taken to overcome the supply deficit.

The SDCWA's Draft 2020 UWMP provides an overview of water quality concerns related to imported water supplies from MWD, which are briefly discussed in the preceding section. For CRA supplies, high salinity levels, uranium, and perchlorate contamination represent the primary areas of concern with respect to water quality. For SWP supplies, key water quality issues are disinfection byproduct precursors, in particular total organic carbon, bromide, and low alkalinity. While municipal agencies that utilize the imported water supplies treat all water to meet both state and federal drinking water standards before the water is delivered to customers, SDCWA notes that poor quality source water will be increasingly expensive and difficult to treat to meet the established regulatory standards.

The SDCWA's local supplies, such as seawater desalination, are not anticipated to be impacted by water quality issues provided that treatment has been designed such that water quality of desalinated water is low in TDS and in other constituents that otherwise pose concerns to regional water quality.

Reduced Reliance on the Delta

The State is seeking to reduce overall dependence on the Bay-Delta, and requires urban water suppliers that anticipate participating in or receiving water from a proposed project, such as a multiyear water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Sacramento-San Joaquin Delta (Delta) are required to demonstrate reduced reliance on the Delta in their UWMPs. Because the District receives water from the Delta through imported purchases from the SDCWA, the District has prepared an appendix to address reduced reliance on the Delta (see **Appendix K**). This evaluation is based on regional supply diversification, to address the requirements of the Delta Plan Policy WR P1 Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Regulations, Title 23, §5003)..

7.2 Reliability by Type of Year

CWC 10631

> *(c)(1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:*
>
> *(c)(1)(A) an average water year,*
>
> *(c)(1)(B) a single dry water year,*
>
> *(c)(1)(C) multiple dry water years.*

CWC 10631(c)(1) requires suppliers to assess supply reliability not only during normal years but also during single dry and multiple dry years to plan for potential droughts and/or other catastrophic supply interruptions. A normal, or average, year is representative of the water supplies that a supplier anticipates will be available during normal conditions and could be a single year or an averaged range of years. Single dry and multiple dry year conditions are usually based on historical records of annual runoff from a particular watershed. To evaluate supply reliability for single year dry conditions, suppliers must assess supply reliability for the year that represents the lowest water supply available to the supplier. To evaluate supply reliability for multiple year dry conditions, suppliers assess supply reliability for a five consecutive year period that is representative of the driest five-year historical sequence for the supplier.

Because the District purchases water from the SDCWA to meet any demands that cannot be met with local supplies, it relied upon information from the SDCWA's Draft 2020 UWMP to select years for its average (normal water year), single dry, and multiple dry year periods. The average year period was selected based on hydrologic modeling performed by SDCWA that modeled supplies and demands from 1986 – 2005. SDCWA selected year 2015 as its single dry year period because it is representative of the lowest regional water supply availability during the recent severe drought. The SDCWA selected years 2011 – 2015 as its multiple dry year period because this was the period where average runoff in the watersheds that affect the regions water supplies was at its lowest. The multiple dry year analysis assumes that recycled water demands vary consistently with potable demands during dry years. In dry years, demands are expected to be between 107% - 109% of normal. SEJPA has sufficient capacity to accommodate these increases in recycled water demands. **Table 7-1** presents the District's basis of water year data, including the base years selected for each year type and the average percentage of water supply that would be available.

Table 7-1: Basis of Water Year Data

DWR Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	Base Year	Volume Avail.	% of Average Supply
Average Year	1986-2018		100%
Single-Dry Year	2015		107%
Consecutive Dry Years 1st Year	2011		107%
Consecutive Dry Years 2nd Year	2012		108%
Consecutive Dry Years 3rd Year	2013		108%
Consecutive Dry Years 4th Year	2014		108%
Consecutive Dry Years 5th Year	2015		109%

7.3 Supply and Demand Assessment

CWC 10635

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.

Projected Normal Year Supply and Demand

Table 7-2 compares current and projected water supply and demand under normal year conditions and indicates that, in average precipitation years, the District has sufficient water to meet its customers' needs through 2045. This projection is based on continued commitment to conservation measures, availability of local surface water and recycled water supplies, and commitment by the SDCWA to meet its member agencies' demands.

Table 7-2: Normal Year Supply vs. Demand

DWR Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045
Purchased Water (SDCWA)	3,661	4,021	3,809	3,969	4,177
Surface Water (Lake Hodges)	2,135	2,135	2,434	2,434	2,434
Recycled Water	700	700	700	700	700
Supply Totals	6,496	6,856	6,943	7,103	7,311
Potable Water Demand	5,796	6,156	6,243	6,403	6,611
Recycled Water Demand	700	700	700	700	700
Demand Totals	6,496	6,856	6,943	7,103	7,311
Potable Water Difference	-	-	-	-	-
Recycled Water Difference	-	-	-	-	-
Difference	-	-	-	-	-

Projected Single Dry Year Supply and Demand

Table 7-3 compares the District's projected water supply and demand during a single dry year and indicates that the District has sufficient water to meet its customers' needs through 2045. Demands in a single dry year are expected to increase by approximately 7% from normal year demands. The analysis assumes the overall increase in demand applies equally to both potable and non-potable demand. The SDCWA's supply reliability analysis, documented in its 2020 UWMP, shows that there are sufficient supplies available to the SDCWA to meet all member agency demands in the single dry year scenario when accounting for both increases in regional demands and dry year impacts on local supply availability for member agencies. The analysis therefore assumes that there would be no shortages in water available for purchase from the SDCWA during any single dry year through 2045 due to SDCWA's carryover supplies (supplies in storage). However, the District anticipates that surface water availability from Lake Hodges would drop down to 523 – 596 AF in a single dry year, which would result in additional demands for water purchased from SDCWA. Because the SDCWA's 2020 UWMP states that additional water supplies would be available to SDCWA member agencies during a single dry year, the District could purchase additional supplies from SDCWA to supplement the reduction in local surface water supply. Given that recycled water is a drought-proof supply and SEJPA's SEWRF has sufficient treatment capacity to increase recycled water deliveries by 7% above normal year use, sufficient recycled water would be available to meet single year dry demands through 2045.

This analysis assumes that the District's customers would not be required to increase conservation in a single dry-year due to additional supply availability from SDCWA, and that passive and active conservation would continue at normal levels such that demands would be consistent with normal water year levels.

Table 7-3: Single Dry Year Supply vs. Demand

DWR Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045
Purchased Water (SDCWA)	5,667	6,051	6,071	6,242	6,464
Surface Water (Lake Hodges)	523	523	596	596	596
Recycled Water	748	748	748	748	748
Supply Totals	**6,938**	**7,322**	**7,415**	**7,586**	**7,808**
Potable Water Demand	6,190	6,574	6,667	6,838	7,060
Recycled Water Demand	748	748	748	748	748
Demand Totals	**6,938**	**7,322**	**7,415**	**7,586**	**7,808**
Potable Water Difference	-	-	-	-	-
Recycled Water Difference	-	-	-	-	-
Difference	**-**	**-**	**-**	**-**	**-**

Projected Multiple Dry Year Supply and Demand

Table 7-4 compares the District's projected water supply and demand during multiple dry years and indicates that the District has sufficient water to meet its customers' needs through 2045. Under the multiple dry year analysis, demands are anticipated to range from approximately 7% above normal in the first year to approximately 9% above normal in the fifth year. The multiple dry year analysis also assumes overall increases in demand apply equally to both potable and non-

potable demand. The analysis used an average demand increase for each year of the multiple dry year scenario due to uncertainty in projecting multiple dry year demands. The SDCWA's supply reliability analysis, documented in its 2020 UWMP, shows that there are sufficient supplies available to the SDCWA to meet all member agency demands in all years of the multiple dry year scenario when accounting for both increases in regional demands and dry year impacts on local supply availability for member agencies. The analysis therefore assumes that there would be enough regional storage capacity and additional supplies to meet the District's demands during all years of a five-year drought period through 2045. In a multiple dry year period, the District anticipates that surface water availability from Lake Hodges would drop down to 523 – 596 AF in the first year, 327 – 373 AF in the second year, and 0 AF in years three through five, all of which would result in additional demands for water purchased from SDCWA. Given that recycled water is a drought-proof supply and SEJPA's SEWRF has sufficient treatment capacity to increase recycled water deliveries by 9% above normal year use, sufficient recycled water would be available to meet demands during a multiple dry year period through 2045.

The SDCWA's 2020 UWMP indicates that a supply shortage is not expected at any point during the multiple dry year period. Because the SDCWA's supply reliability analysis incorporates member agency supplies and total member agency demands (not just total demands on SDCWA), any year the SDCWA's analysis finds 100% reliability, the District expects to be able to purchase as much water as needed to meet demands not met by local supplies.

Table 7-4: Multiple Dry Year Supply vs. Demand

DWR Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025	2030	2035	2040	2045
Year 1	Purchased Water (SDCWA)	5,667	6,051	6,071	6,242	6,464
	Surface Water (Lake Hodges)	523	523	596	596	596
	Recycled Water	748	748	748	748	748
	Supply Totals	**6,938**	**7,322**	**7,415**	**7,586**	**7,808**
	Potable Water Demand	6,190	6,574	6,667	6,838	7,060
	Recycled Water Demand	748	748	748	748	748
	Demand Totals	**6,938**	**7,322**	**7,415**	**7,586**	**7,808**
	Potable Water Difference	-	-	-	-	-
	Recycled Water Difference	-	-	-	-	-
	Difference	**-**	**-**	**-**	**-**	**-**
Year 2	Purchased Water (SDCWA)	5,914	6,301	6,349	6,521	6,745
	Surface Water (Lake Hodges)	327	327	373	373	373
	Recycled Water	754	754	754	754	754
	Supply Totals	**6,995**	**7,382**	**7,476**	**7,648**	**7,872**
	Potable Water Demand	6,241	6,628	6,722	6,894	7,118
	Recycled Water Demand	754	754	754	754	754
	Demand Totals	**6,995**	**7,382**	**7,476**	**7,648**	**7,872**
	Potable Water Difference	-	-	-	-	-
	Recycled Water Difference	-	-	-	-	-
	Difference	**-**	**-**	**-**	**-**	**-**

DWR Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025	2030	2035	2040	2045
Year 3	Purchased Water (SDCWA)	6,263	6,652	6,746	6,919	7,144
	Surface Water (Lake Hodges)	-	-	-	-	-
	Recycled Water	756	756	756	756	756
	Supply Totals	**7,019**	**7,408**	**7,502**	**7,675**	**7,900**
	Potable Water Demand	6,263	6,652	6,746	6,919	7,144
	Recycled Water Demand	756	756	756	756	756
	Demand Totals	**7,019**	**7,408**	**7,502**	**7,675**	**7,900**
	Potable Water Difference	-	-	-	-	-
	Recycled Water Difference	-	-	-	-	-
	Difference	**-**	**-**	**-**	**-**	**-**
Year 4	Purchased Water (SDCWA)	6,286	6,677	6,771	6,945	7,170
	Surface Water (Lake Hodges)	-	-	-	-	-
	Recycled Water	759	759	759	759	759
	Supply Totals	**7,045**	**7,436**	**7,530**	**7,704**	**7,929**
	Potable Water Demand	6,286	6,677	6,771	6,945	7,170
	Recycled Water Demand	759	759	759	759	759
	Demand Totals	**7,045**	**7,436**	**7,530**	**7,704**	**7,929**
	Potable Water Difference	-	-	-	-	-
	Recycled Water Difference	-	-	-	-	-
	Difference	**-**	**-**	**-**	**-**	**-**
Year 5	Purchased Water (SDCWA)	6,295	6,686	6,780	6,954	7,180
	Surface Water (Lake Hodges)	-	-	-	-	-
	Recycled Water	760	760	760	760	760
	Supply Totals	**7,055**	**7,446**	**7,540**	**7,714**	**7,940**
	Potable Water Demand	6,295	6,686	6,780	6,954	7,180
	Recycled Water Demand	760	760	760	760	760
	Demand Totals	**7,055**	**7,446**	**7,540**	**7,714**	**7,940**
	Potable Water Difference	-	-	-	-	-
	Recycled Water Difference	-	-	-	-	-
	Difference	**-**	**-**	**-**	**-**	**-**

7.4 Five-Year Drought Risk Assessment

CWC 10635(b)

Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:

(1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.

(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions

(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.

(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.

The District completed a Drought Risk Assessment (DRA) to determine the reliability of water service under a severe drought period lasting for the next five consecutive years. The results of the DRA are considered in the development of demand management measures (refer to **Chapter 9 – Demand Management Measures**) and water supply projects (refer to **Chapter 6 – Water Supplies**). The DRA provides an opportunity to evaluate the functionality of the District's Water Shortage Contingency Plan (WSCP), discussed in **Chapter 8 – Water Shortage Contingency Planning**. Results of this evaluation can be used to help identify undesired risks and allow for proactive steps to be taken prior to the next actual long-term drought. The DRA can be modified or updated on an interim cycle, as needed, to allow for the incorporation of new information as it becomes available or in the event of unforeseen circumstances.

Data and Methodology

Per UWMP requirements, the DRA is based on the five driest consecutive years on record. To align with SDCWA's DRA, the historical period used in this analysis is the period from 2014 to 2018. This represents the five-year period determined by the SDCWA to have the lowest local water supply production from surface water and groundwater, the SDCWA's two local water supplies that are most susceptible to variation due to weather conditions. As discussed in **Section 7.1**, the District's supply portfolio includes water purchased from the SDCWA, local surface water stored at Lake Hodges, and recycled water purchased from SEJPA. Recycled water purchases are considered to be drought-proof supplies and therefore are not expected to be significantly impacted by weather conditions. Regarding the District's local surface water supply, Lake Hodges, this DRA assumes that availability of its Lake Hodges supplies is consistent with availability of the SDCWA's Lake Hodges supplies from 2014 through 2018.

During periods where non-potable demands exceed non-potable supplies, the District supplements with potable water by increasing its purchases from the SDCWA accordingly. Therefore, because the District purchases water from the SDCWA to meet demands that cannot be met with local supplies, and the SDCWA's DRA accounts for both regional demands and availability of local supplies (including Lake Hodges and recycled water), the District's DRA uses the Water Authority's DRA as the basis for availability of purchased supplies. For years where SDCWA projects sufficient supplies to meet demands, the District expects to be able to purchase enough water to meet demands. Data used to calculate the District's supply capabilities under the scenario of five consecutive dry years is provided in **Table 7-5**.

Projected demands were calculated using multipliers provided by SDCWA in their Draft 2020 UWMP (shown in **Table 7-5**). These multipliers are based on a weather index that was developed to assess the impact of dry/hot weather conditions on demands. Per SDCWA's Draft 2020 UWMP, these demand multipliers are applied to 2020 demands.

Table 7-5: Projected Potable Water Demands – Normal vs. Five-Year Drought Conditions

	2021	2022	2023	2024	2025
Demand Projection Multiplier (Change from 2020)[1]	108%	112%	116%	120%	125%
Projected Five-Year Potable Drought Demands (AFY)	6,593	6,838	7,082	7,326	7,632
NOTES: [1]Based on a weather index developed to assess the impact of dry/hot weather on water use.					

Determination of Reliability

SDCWA anticipates a surplus of water supplies in all five years of an extended drought period and would have enough supply to meet the District's increased demands shown in **Table 7-5**. The analysis presented in **Table 7-6**, the District would be able to meet its water demands in all five years of the extended drought period; and therefore, implementation of shortage response actions, as discussed in the District's WSCP, would not be required (refer to **Chapter 8 – Water Shortage Contingency Planning**).

Table 7-6: Five-Year Drought Risk Assessment (Potable Water)

DWR Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)					
Year	2021	2022	2023	2024	2025
Gross Potable Water Use	5,900	6,119	6,337	6,556	6,829
Gross Recycled Water Use	693	719	745	770	803
Total Water Use	6,593	6,838	7,082	7,326	7,632
Total Supplies	6,593	6,838	7,082	7,326	7,632
Surplus/Shortfall w/o WSCP Action	0	0	0	0	0
WSCP – Supply Augmentation Benefit	0	0	0	0	0
WSCP – Use Reduction Savings Benefit	0	0	0	0	0
Revised Surplus/Shortfall	0	0	0	0	0
Resulting % Use Reduction from WSCP Action	0%	0%	0%	0%	0%

7.5 Regional Supply Reliability

CWC 10620

> *(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.*

The District is increasing efforts to maximize the use of local water resources in order to reduce its overall dependence on imported supplies and increase its supply reliability. The District has taken steps towards achieving this goal by offering rebate and incentive programs to reduce indoor and outdoor water use (refer to **Chapter 9 – Demand Management Measures**), supporting development of local drought-proof supplies (refer to **Chapter 6 – Water Supplies**), and implementing voluntary and mandatory water use restrictions as needed to reduce demands during droughts conditions (refer to **Chapter 8 – Water Shortage Contingency Planning**).

SDCWA works closely with its 24 member agencies to promote development of local supply resources and water conservation efforts. Several rebate and incentive programs offered by the District, many in conjunction with SDCWA and MWD, have contributed to significant reductions in overall demands as evidenced by the District's achievement of its SB X7-7 2020 Target (refer to **Chapter 5 – SB X7-7 Baselines and Targets**). The District is also a proponent of a future water project that would increase its local water resources by supplying approximately 2,000 AF of potable reuse water to SDWD to meet demand, as discussed in **Section 6.8** of this UWMP. During dry years, when available water supplies are reduced, the District manages its overall water supply and demand balance through implementation of the voluntary and mandatory water use restrictions defined in its Water Supply Shortage Response Program. Together, these water supply diversification and demand management tools and measures will maximize the District's local resources and minimize its need to purchase imported water from the SDCWA.

7.6 Water Sustainability Plan

District customers depend on water for their health, well-being, and public safety; therefore, providing a reliable, sustainable supply of water is a principal function of the District. The District's UWMP provides the core elements typically included in a water sustainability plan; however, the reporting structure for the UWMP is rather rigid, which makes it challenging to succinctly document the District's current and future water sustainability efforts. The District has developed a Water Sustainability Plan to provide a clear and concise picture of the District's overall plan to achieve water sustainability. While this UWMP is updated once every five years, the District's Water Sustainability Plan is a "living" document and is updated as conditions and/or objectives change. The District's Water Sustainability Plan, which was most recently updated in June of 2016, is provided as **Appendix I**.

Chapter 8 Water Shortage Contingency Planning

CWC 10632

(a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan…

(c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city of county with which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.

8.1 Summary of Plan

The Urban Water Management Planning Act (UWMP Act), enacted in 1983, requires water suppliers to conduct shortage contingency planning analyses that outline specific actions a supplier will take in response to short-term water supply shortages caused by droughts and/or catastrophic supply interruptions.

The District's water shortage contingency plan (WSCP) was previously incorporated in the District's Administrative Code as Article 29 (Water Supply Shortage Response Program) and was updated and replaced by Article 30 upon adoption on May 19, 2021. The WSCP (included here as **Appendix J**) establishes regulations on water management by the District and progressive restrictions on water use to be implemented for responding to water supply limitations resulting from declared water shortages or declared water shortage emergencies.

The District updated its Water Supply Shortage Response Program (former Article 29 to current Article 30) in May 2021 to comply with new 2018 legislation that was adopted in response to the recent severe drought. Pursuant to the 2018 legislation, water suppliers must address several new requirements with prescriptive elements in their water shortage contingency plans, including, but not limited to:

- Describe key attributes of and procedures for conducting an annual water supply reliability assessment;
- Update to six standard water shortage response levels (progressive ranges of 10%, 20%, 30%, 40%, 50%, and greater than 50% shortage);
- Quantify estimated water savings associated with each shortage response action;
- Describe communication protocols and public outreach measures;
- Identify monitoring and reporting procedures to track compliance; and
- Discuss methods to reevaluate and improve the water shortage contingency plan.

This WSCP contains a detailed discussion of the water shortage contingency planning undertaken by the District to prepare for, and implement during, a drought or another catastrophic interruption of water supplies, such as seismic events. The WSCP also describes the District's annual water supply reliability assessment procedures and addresses the District's mandatory prohibitions and penalties associated with excess water use.

Annual Assessment

Consistent with the requirements of CWC 1063.2.1, the District will submit a water supply and demand assessment report (Annual Assessment) to DWR on or before July 1 of each year. The Annual Assessment will be used to evaluate short-term water supply reliability for the upcoming fiscal year for both normal year and single dry-year conditions. Should the Annual Assessment identify potential supply shortages, the District may trigger the appropriate shortage response to offset the shortage. Additional details on the Annual Assessment content and process is provided in the WSCP (see **Appendix J**), and the timeline and process is presented here in **Table 8-1**.

Table 8-1: Annual Assessment Process and Timeline

Time Frame	Step	Action
March - April	1(a)	District estimates available local supplies.
	1(b)	District coordinates with SDCWA to gather necessary information for SDCWA to conduct its wholesaler assessment.
April - May	2(a)	SDCWA announces member agency allocation determination for current year.
	2(b)	SDCWA determines carryover (and emergency storage apportionments if under emergency).
	2(c)	District conducts its Annual Assessment:
	(i)	District determines total available supply – inclusive of imported water supply.
	(ii)	District determines infrastructure constraints (including water quality conditions limiting local sources).
	(iii)	District determines expected demand for current year and one subsequent dry year, anticipated to be based on regional projections from SDCWA.
	(iv)	District compares supply and demand and makes a determination of the water supply reliability.
June	3(a)	District Board of Directors (Encinitas City Council) reviews and approves Annual Assessment determination.
	3(b)	District coordinates with SDCWA on submittal of the report. Annual Assessment report to be submitted to the state by July 1.
NOTES: The process outlined above is provided as a guideline and may be modified based on conditions present during the evaluation period.		

Stages of Action

Table 8-2 presents the District's six stages of actions (Levels 1 – 6), which are a sequential, regulatory program of increasingly stringent water use restrictions. When the District declares that a particular shortage level is in effect, District customers must comply with all regulations contained in the declared stage or face a potential penalty. Details of the stages and specifics on what is prohibited under each stage are provided in the WSCP (**Appendix J**). **Table 8-3** presents the voluntary or mandatory water use restrictions and prohibitions that the District will implement for each stage, along with the anticipated savings associated with each action.

Table 8-2: Water Shortage Contingency Plan Stages

DWR Table 8-1: Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Water Shortage Condition
1	Up to 10%	Includes voluntary water shortage actions to achieve demand reductions, such as water before 10 a.m. and after 6 p.m. for residential, commercial, and nursery/commercial growers.
2	Up to 20%	Mandates the voluntary actions included under Level 1 and includes additional measures focused on reducing outdoor water use such as limiting landscape irrigation for residential and commercial properties to 3 assigned days per week and imposing time limits for lawn watering with sprinklers. Irrigation restrictions do not apply to drip or micro irrigation.
3	Up to 30%	Includes mandatory Level 1 and 2 actions and additional actions focused on reducing outdoor water use such as stop operating ornamental fountains unless recycled water is used and further limiting the number of assigned days per week for residential and commercial landscape irrigation to 2 days (one day per week November through May). Irrigation restrictions do not apply to drip or micro irrigation. The District will also suspend new potable water services and new temporary and permanent meters unless the District provides a program to offset new water demands equal to the new use. The District may also establish a water allocation policy for properties served and suspend considerations of annexations to its service area.
4	Up to 40%	Includes mandatory Level 1, 2, and 3 actions and additional water shortage actions such as preventing filling/refilling of ornamental lakes or ponds (except to sustain aquatic life).
5	Up to 50%	Includes mandatory Level 1, 2, 3, and 4 actions and additional actions focused on reducing outdoor water use such as prohibiting all landscape irrigation (with exceptions for commercial growers, nurseries, and other listed uses).
6	>50%	Includes mandatory Level 1, 2, 3, 4, and 5 actions and additional actions focused on reducing outdoor water use such as expanding prohibitions on all landscape irrigation by removing several exclusions permitted under Level 5.

Table 8-3: Shortage Response Actions by Stage

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for washing hard surfaces	1%		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0.1%		No
1	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Wash vehicles with hand-held hose / shut-off nozzle and bucket or at a commercial site with recirculating water	No
1	Landscape - Limit landscape irrigation to specific times	3%	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Nursery and commercial growers irrigate before 10 a.m. and after 6 p.m. only.	No
1	Other	1%	Vehicles must be washed using a bucket, hand-held hose with positive shut-off nozzle, or at a commercial site that recirculated water.	No
1	CII - Restaurants may only serve water upon request	0.1%		No
1	CII - Lodging establishment must offer opt out of linen service	0.1%		No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	Repair all leaks within 5 days of detection or notification by the District	No
1	Other - Prohibit use of potable water for construction and dust control	< 0.1%	When recycled/non-potable water is available	No
1	Other	Variable	Comply with any mandatory regulations established by any State agency governing the use of water	No
1	Water Features - Restrict water use for decorative water features, such as fountains	1%	Use re-circulated water or recycled water to operate ornamental fountains.	No

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
1	Expand public information campaign	1%		No
1	Implement or modify drought rate structure or surcharge	2%	May implement drought rate structure	No
2	Other - Prohibit use of potable water for washing hard surfaces	1%		Yes
2	Landscape - Restrict or prohibit runoff from landscape irrigation	0.1%		Yes
2	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Wash vehicles with hand-held hose / shut-off nozzle and bucket or at a commercial site with recirculating water	Yes
2	Landscape - Limit landscape irrigation to specific times	3%	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Nursery and commercial growers irrigate before 10 a.m. and after 6 p.m. only.	Yes
2	Other	1%	Vehicles must be washed using a bucket, hand-held hose with positive shut-off nozzle, or at a commercial site that recirculated water.	Yes
2	CII - Restaurants may only serve water upon request	0.1%		Yes
2	CII - Lodging establishment must offer opt out of linen service	0.1%		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	Repair all leaks within 72 hours of detection or notification by the District	Yes
2	Other - Prohibit use of potable water for construction and dust control	< 0.1%	When recycled/non-potable water is available	Yes
2	Other	Variable	Comply with any mandatory regulations established by any State agency governing the use of water	Yes

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
2	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop operation unless re-circulated or recycled water is used.	Yes
2	Expand public information campaign	5%		Yes
2	Implement or modify drought rate structure or surcharge	2%	May implement drought rate structure	Yes
2	Landscape - Limit landscape irrigation to specific days	8%	No more than 3 assigned days per week	Yes
2	Landscape - Other landscape restriction or prohibition	3%	Limit watering using sprinklers to no more than 10 minutes per watering station per assigned day.	Yes
3	Landscape - Limit landscape irrigation to specific days	18%	No more than 2 assigned days per week (no more than once per week November to May)	Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	2%	Repair all leaks within 48 hours of detection or notification by the District.	Yes
3	Other	Variable	Suspend considerations of annexations to the service area.	Yes
3	Other	Variable	May establish a water allocation policy	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop operation unless recycled water is used.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems	Yes
4	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop filling or refilling ornamental lakes or ponds, except to the extent needed to sustain aquatic life.	Yes

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
4	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspend new potable water services and new temporary and permanent meters unless the District provides a program to offset new potable water demands.	Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	4%	Repair all leaks within 24 hours of detection or notification by the District	Yes
5	Landscape - Prohibit all landscape irrigation	26%	With the exception of crops and landscape products of commercial growers and nurseries and other noted exceptions (trees and shrubs watered by bucket / hand-held hose / positive shut-off nozzle / low-volume non-spray irrigation, fire protection, erosion control, rare or essential plant materials, public parks / day care centers / school grounds / cemeteries / golf course greens not exceeding (2) days per week, livestock water, public works projects, and actively irrigated environmental mitigation projects).	Yes
6	Landscape - Prohibit all landscape irrigation	30%	With the exception of crops and landscape products of commercial growers and nurseries and other noted exceptions (fire protection, erosion control, rare or essential plant materials, livestock water, public works projects, and actively irrigated environmental mitigation projects	Yes
6	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspend new potable water services and new temporary and permanent meters.	Yes
NOTES: Mandatory water shortage restrictions enforced in previous stages also apply to the current stage unless the current stage includes an equivalent action to reflect stricter measures, in which case the stricter measure would apply.				

Water Shortage Emergency Response

The District has taken significant steps to ensure it is prepared for catastrophic water supply interruption, including implementing local measures to increase supply reliability, developing planning documents that outline contingency actions, and coordinating with the SDCWA and other member agencies. This District has implemented local supply reliability measures through its shared ownership of the R.E. Badger treatment plant and access to substantial raw water reserves from Lake Hodges. Additionally, the District has access to treated water from SDCWA and multiple emergency interconnections with OMWD. To reduce impacts to the District's system during emergencies, the District has also invested in redundancy measures through additional interconnections with OMWD and construction of a parallel 54-inch transmission supply pipeline from the R.E. Badger treatment plant. The District also has three storage reservoirs, and is updating its Emergency Response Plan.

SDCWA has implemented its Emergency Storage Project (ESP) to provide emergency water to its member agencies. The ESP involved installation of interconnections from key reservoirs to the SDCWA distribution system, including Lake Hodges, and a dam raise at San Vicente Reservoir to increase storage capacity. Supplies from the ESP may be provided to member agencies during outages or drought, as authorized by SDCWA's Board of Directors.

Seismic Risk Assessment and Mitigation Plan

CWC 10632.5 requires an urban water supplier to include within its UWMP a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. Pursuant to CWC 10632.5(c), an urban water supplier may comply with this requirement by submitting a copy of the most recently adopted multi-hazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the multi-hazard mitigation plan addresses seismic risk. A copy of Section 4.3.4 of the Multi-Hazard Mitigation Plan for San Diego County (MHM Plan), which addresses seismic risk, as well as Section 5.8 of the MHM Plan which summarizes the potential hazards for the City of Encinitas and related goals, objectives, and actions are included as Appendix A of the WSCP (see **Appendix J**).

Communication Protocols

Following declaration of a Level 1 shortage, the District will implement its communication protocols, as outlined in the WSCP (**Appendix J**). This may include increase public education and outreach, newspaper notices, bill inserts, and website posts.

Penalties, Charges, and Other Enforcement of Prohibitions

The District has the ability to administer fines for each violation of the Water Supply Shortage Response Program. A summary of administrative penalties is provided in **Table 8-4**. Additionally, violations may also be subject to installation of a flow-restricting device on the meter, prosecution with a misdemeanor, or in excessive violations a discontinuance of service. Customers are able to report water waste to the District as outlined in the WSCP (**Appendix J**).

Table 8-4: Penalties for Violation of Article 30

Violation	Penalty
First Violation	Warning (at sole discretion of General Manager)
Second Violation	$100 fine
Third Violation	$200 fine
Fourth Violation (and each additional violation)	$500 fine
NOTES: Within the current twelve-month period from the most recent violation.	

Consumption Reduction Methods

Table 8-5 presents actions taken by the District to reduce demands during each shortage stage. The District's consumption reduction methods, including rebate and incentive programs, are discussed in more detail in **Chapter 9 – Demand Management Measures**.

Table 8-5: Supply Augmentation and Other Actions

DWR Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*
All Levels	Increase Water Waste Patrols	5%	Water Waste Monitoring and/or Enforcement
All Levels	Expand Public Information Campaign	5%	
All Levels	Offer Water Use Surveys	Variable	
All Levels	Provide Rebates on Plumbing Fixtures and Devices	Variable	
All Levels	Provide Rebates for Landscape Irrigation Efficiency	Variable	
All Levels	Provide Rebates for Turf Replacement	Variable	
All Levels	Decrease Line Flushing	Variable	
All Levels	Reduce System Water Loss	< 1%	District's water losses are already very good compared to the water industry average (approximately 3% of total demand)
Level 2 – 6	Implement or Modify Drought Rate Structure or Surcharge	2%	May implement drought rates.
Levels 2 – 6	Other	5%	Customer billing inserts describing water shortage response actions.
Levels 3 – 6	Other	Variable	The District may establish a water allocation for any property it serves.
Levels 3 – 6	Other	Variable	The District may suspend consideration of annexations to its service area.

DWR Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*
Levels 4 – 6	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspends new potable water services and new temporary and permanent meters unless the District provides a program to offset new potable water demands (this exception does not apply to Level 6).

Determining Water Shortage Reductions

The methods for determining actual water use reductions are implemented on an ongoing basis. All water acquired by the District and delivered to customers is metered and monitored. Actions can be triggered by the District upon notification from SDCWA of a water shortage, or if a shortage is identified in the Annual Assessment. Because the District monitors water use, if the trend in consumption is such that demand is greater than anticipated supply, the Encinitas City Council is notified so that corrective action (such as increased publicity and enforcement or consideration of declaring the next higher stage) can be taken.

WSCP Refinement Procedures

The District's WSCP is a living document and will need to be responsive to the effectiveness of conservation measures in the midst of a water shortage. The District will analyze monthly monitoring data and convene the Encinitas City Council to determine if adaptive measures need to be taken to achieve the necessary shortage reduction levels. In the case that the water shortage response measures are not working as desired, the District will add new actions or refine current actions to achieve greater savings. When updates are needed, the District will coordinate with all appropriate City of Encinitas Departments to refine the plan and provide updated information and measures to the Encinitas City Council for approval.

Revenue and Expenditure Impacts

If the WSCP is activated and water conservation measures are put into effect, the District would be operating with reduced water sales, the amount of which would vary depending on the declared drought response stage. The District may also incur additional expenses associated with enforcement of the WSCP, increased public outreach, or increased purchases of alternative supplies by either the District or SDCWA. Increased expenses may be recovered by implementing demand reduction rates (drought rates), volumetric penalties, and civil penalties, described in the WSCP (**Appendix J**). If necessary, the District could adjust its water rate structure to help offset potential losses due to reduced sales, which would involve conducting a rate study in accordance with Proposition 218.

Chapter 9 Demand Management Measures

CWC 10631

(e) Provide a description of the supplier's water demand management measures.

This description shall include all of the following:

(1)(A) ... a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

CWC 526

(a) Notwithstanding any other provisions of law, an urban water supplier that, on or after January 1, 2004, receives water from the federal Central Valley Project under a water service contract or subcontract... shall do both of the following:

(1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings... located within its service area.

CWC 527

(a) An urban water supplier that is not subject to Section 526 shall do both the following:

(1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.

The Water Code defines "Demand Management" as water conservation measures, programs, and incentives that prevent the waste of water and promote reasonable and efficient use and reuse of available supplies. Demand management measures (DMMs) are developed and implemented for the purpose of reducing overall demand on a water supplier. Demand reductions can be achieved using several methods including water conservation, which is a relatively low-cost way to augment water supply that is typically easy to implement.

Water conservation is a key component in Southern California's strategy to meet water demand, and the San Dieguito Water District (SDWD) has demonstrated its commitment to water use efficiency and conservation by proactively supporting District and SDCWA water conservation programs since the early 1990s. SDWD's efforts to promote and achieve water conservation include the DMMs specified by the California Water Code, as well as other programs tailored to meet the specific needs of the District's water customers.

The District had been a signatory member of the California Urban Water Conservation Council (CUWCC) since 1991 and prepared a biannual Best Management Practices Activity Report, which was also referred to as the CUWCC BMP Retail Coverage Report (BMP Report), up until 2015. The BMP Report was a good faith effort in implementing 14 urban water conservation Best Management Practices (BMPs) outlined by CUWCC that were intended to reduce long-term urban water demands. Reporting to the CUWCC is no longer required.

The District has implemented DMMs by participating in the conservation efforts of its two wholesale water suppliers, MWD and SDCWA. While the District has offered some programs independently, most of its water conservation programs have been offered in partnership with MWD and SDCWA.

The District maintains a Water Sustainability Plan (WSP), last updated in June of 2016, to document its current and future efforts to achieve water sustainability. The WSP (refer to **Appendix I**) discusses the water conservation programs that the District has implemented, is currently implementing, and plans to implement in order to meet its water use reduction targets.

Water conservation programs implemented by the District, either on its own or in combination with SDCWA and MWD, as identified in its WSP, include the following:

- Water conservation rebates and incentives
- Commercial and residential conservation audits and surveys
- Professional and residential workshops
- Customer and student outreach and education
- Large landscape budgets (i.e., Turf Replacement Program)
- Water conservation contests (i.e., 4th grade school poster contest)

The District also continues to enforce water use prohibitions and encourage voluntary conservation measures that were initially enacted during the 2012 to 2016 drought. These prohibitions are listed on the Drought webpage of the City of Encinitas Water Conservation site (https://encinitasca.gov/I-Want-To/Water-Conservation/Drought) and include prohibitions on overspray waste, washing down paved surfaces, and irrigating within 48 hours of rain. The voluntary measures include cutting back on landscape irrigation and using a hose nozzle shut off for outdoor washing tasks.

As explained in the WSP, water conservation measures have evolved over time. In the 1990s, DMMs were focused on reducing indoor water use, mainly through replacement of low-efficiency plumbing fixtures (i.e., toilets, showerheads) with more efficient, low-flow fixtures. Once significant reductions in indoor water use were realized as a result of fixture replacement, new measures focused on reducing outdoor water use were implemented and remain the primary focus of today's DMMs.

According to the CWC 10631(e)(1)(B), the description of demand management measures shall include: water waste prevention ordinances, water metering, conservation pricing, public education and outreach, programs to assess and manage distribution system real losses, water conservation program coordination and staffing support, and other demand management measures that have significant impacts on water use. The District's water conservation efforts with respect

to each of these DMMs are discussed below, with participation for the last five years provided to the extend data are available.

Water Waste Prevention Ordinances

The District's 2015 Water Supply Shortage Response Program includes the prohibition of water waste. Gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains are all prohibited by the District. The District also does not allow for "unreasonable" water use to occur, including but not limited to failure to repair a water leak after notification from the District, inefficient landscape irrigation, excessive runoff, low head drainage, and overspray of water flows onto non-targeted areas. Customers that contribute to "unreasonable" water use are subject to the violations and penalties described in Section 29.12 of the District's Water Supply Shortage Response Plan.

Water Metering

The District minimizes distribution system water losses by metering all customers within its service area. The District replaces meters every 12 to 15 years as part of its Meter Replacement Program to ensure accuracy of its customers' meter readings.

Conservation Pricing

Potable and recycled water rates for the District's customers are set volumetrically based on quantity of water use and customer class. During drought conditions the District implements conservation pricing, known as Drought Rates, to recover lost revenue due to decreased consumption and to encourage water conservation to meet the desired conservation goals for each drought stage. The District utilizes a tiered rate structure for conservation pricing where efficient water use is billed at a lower price and higher water use is billed at progressively higher prices. According to Section 5.2.1 of the District's Water Rate Study (2019), SDWD adopts its Drought Rates separately from other types of rate increases, as needed.

Programs to Assess and Manage Distribution System Real Losses

The District diligently monitors and controls water system losses using standards set by the American Water Works Association (AWWA). According to the AWWA, the average water supplier experiences an annual water loss between 8 and 12 percent of its total demand. The District's average water loss was approximately 3.6 percent of total demand between fiscal year 2017 and 2020 (refer to **Section 4.3 – Distribution System Water Losses**), which is considered very good in the water industry.

In addition to maintaining the robust metering programs discussed above, the District minimizes real losses in its distribution system through non-destructive testing of its water mains. The purpose of non-destructive testing is to assess the remaining life of the main and detect possible leakage problems in order to maximize the useful life of the pipe, repair any leaks, and plan for replacement before problems occur. Finally, the District recently began utilizing recycled water for fire hydrants at the San Elijo Water Reclamation Facility, which has reduced water losses by reducing the amount of potable water required for system flushing.

Public Education and Outreach

The District collaborates with local organizations and water agencies to offer free workshops and events to encourage the public to reduce water consumption and help educate its customers on how to use water more efficiently. Some of the recently held or ongoing workshops and events consist of programs focused on outdoor water use conservation, including the WaterSmart Landscape Design for Homeowners Workshop, WaterSmart Landscaping Class Series, Garden Friendly Plant Fair, Sustainable Landscapes Program, and Qualified Water Efficient Landscaper. In 2019, the District co-sponsored 6 landscape workshops with a total of 200 attendees and co-sponsored a greywater workshop.

The District also develops online education programs to provide useful and informative videos, recommendations, and other resources to increase public awareness of water use reduction. The District sponsors Splash Lab visits to elementary schools within its service area for grades 4-6 through which it utilizes a hands-on approach to teach students about GIS, lab work, water quality, and water conservation. In 2019, a total of 287 elementary students participated in three District-sponsored Splash Labs. The District offers free materials including Wise About Water Conservation activity books, World of Water activity books, The Wonderful World of Water, Water Times magazine and teacher's guides, and California Water map posters to schools within the District's service area. In 2019, the District sponsored 2 "Ms. Smarty Plants" elementary school presentations, participated in the North County Water Agencies' 4th Grade Poster Contest and participated in the WaterSmart Landscape Contest.

Water Conservation Program Coordination and Staffing Support

The District's Water Conservation Division administers education, outreach, and incentive programs for its customers to help the District reduce water consumption. The Water Conservation Division maintains a webpage dedicated to water conservation that includes contact information for the public (Phone: 760-633-2676, Email: conserve@sdwd.org). District staff includes a designated Water Conservation Specialist.

Other Demand Management Measures

According to the Rebate and Incentives webpage on the City of Encinitas Water Conservation site (https://encinitasca.gov/I-Want-To/Water-Conservation/Rebates-and-Incentives), the District offers a variety of rebate and incentive programs, the majority of which are done through MWD's SoCal WaterSmart Program. Some of the rebate and incentive programs offered through MWD include the Residential and Commercial Turf Replacement Programs, the Water Savings Incentive Program, the On-Site Retrofit Program, and the Commercial Rebates Program. The Turf Replacement Programs provide rebates to residential and commercial customers for removing existing grass and replacing it with organic, drought-tolerant landscaping. These programs aim to combine turf removal, irrigation modification, and rainwater retention or filtration to support reuse or soil absorption of rainwater, resulting in maximized water utilization and conservation. The Water Savings Incentive Program provides financial incentives for customized water efficiency projects including installation of commercial or industrial high-efficiency equipment, industrial process improvements, agricultural and landscape water efficiency improvements, and water management services. The On-Site Retrofit Program provides financial incentives to commercial, industrial, and institutional property owners, including HOAs, who convert potable water irrigation or industrial water systems to recycled water systems. Finally, the Commercial Rebates

Program offers rebates for plumbing fixtures (e.g., premium high-efficiency toilets), landscape equipment, food equipment, HVAC equipment, and medical and dental equipment.

Other rebate and incentive programs are offered to the District's customers through SDCWA and San Diego Gas and Electric (SDG&E). In partnership with SDCWA, the District provides free WaterSmart Checkups to residential and commercial customers. The District sponsored 33 WaterSmart Checkups in 2019. Additionally, instant rebates are available to eligible commercial customers of SDG&E and SDCWA (including SDWD's customers) for some qualifying water and energy saving products.

In addition, each year the District provides many free giveaways including hose nozzles, moisture meters, reusable water bottles, and reusable shopping bags. In 2019, the District co-hosted a rain barrel distribution event in which it sold 104 barrels. The District plans to continue its rebate and incentive programs, including programs offered through SDCWA and MWD, so long as funding allows.

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Chapter 10 Plan Adoption, Submittal, and Implementation

This chapter describes addressing the CWC requirements for a public hearing, the UWMP adoption process, submitting an adopted UWMP, plan implementation, and the process for amending an adopted UWMP.

This chapter includes the following sections:

- Inclusion of all 2020 Data
- Notice of Public Hearing
- Public Hearing and Adoption
- Plan Submittal
- Public Availability
- Amending an Adopted UWMP and/or WSCP

10.1 Inclusion of All 2020 Data

2020 UWMPs must include the water use and planning data for the entire year of 2020. As noted previously, the District reported all data using the Fiscal Year of 2020, from June 30, 3019 to July 1, 2020.

10.2 Notice of Public Hearing

Water suppliers must hold a public hearing prior to adopting their urban water management plan.

10.2.1 Notice to Cities and Counties

CWC 10621

> *(b) Every urban water supplier required to prepare a plan shall… at least 60 days prior to the public hearing on the plan … notify any city or county within which the supplier provides waters supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

CWC 10642

> *…The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies.*

The District sent its 60-day notices (Notices) entitled, "San Dieguito Water District 2020 Urban Water Management Plan Update" (**Appendix C**) to the public agencies listed in **Table 2-5** on February 18, 2021. The Notices informed applicable agencies, cities, and counties that the District was reviewing and updating its UWMP and that the District would be adopting an update to its WSCP as part of its 2020 UWMP and also be considering an Addendum to its 2015 UWMP to demonstrate consistency with the Delta Plan Policy to reduce reliance on the Delta through improved regional water self-reliance. **Table 10-1** summarizes the cities and counties to which Notices were sent.

Table 10-1: List of Cities and Counties Notified

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
City of Encinitas	☑	☑
County Name	60 Day Notice	Notice of Public Hearing
San Diego County	☑	☑
NOTES: 60 Day Notices and Notice of Public Hearing were also sent to San Diego County Water Authority, San Elijo JPA, Santa Fe Irrigation District, Olivenhain Municipal Water District, Vallecitos Water District, and Rincon del Diablo Municipal Water District.		

10.2.2 Notice to the Public

CWC 10642

> *...Prior to adopting either [the plan or water shortage contingency plan], the urban water supplier shall make both of the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon. Prior to any of these hearings, notice of the time and place of the hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code [see below]. The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies.*

Government Code 6066

> *Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.*

The public hearing must be noticed in a local newspaper as prescribed in Government Code 6066. This notice must include time and place of hearing, as well as the location where the plan is available for public inspection.

The District published Notice to the Public on April 16, 2021 and April 23, 2021 in The Coast News Group local newspaper publication. In addition, the District posted the Notice of Public Hearing and made a draft copy of the 2020 UWMP and WSCP available on its website at https://encinitasca.gov/Government/Departments/San-Dieguito-Water-District/Engineering-Planning for public review. A copy of the published Notice of Public Hearing and the proof of publication is attached as **Appendix L**. The District also notified members of the public via email using the City of Encinitas notification list.

10.3 Public Hearing and Adoption

CWC 10642

> *...Prior to adopting either, [the plan or water shortage contingency plan], the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon.*

CWC 10608.26

> *(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:*
>
> *(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.*
>
> *(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.*
>
> *(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.*

CWC 10642

...After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing.

Because the public hearing may take place at the same meeting as the adoption hearing of the District Board (Encinitas City Council), the District held one meeting for both the public hearing and the adoption. The District held its public hearing at its regularly scheduled District Board Meeting on May 19, 2021. District Staff presented the highlights of the 2020 UWMP and WSCP to the Board and the Board received comments on the draft UWMP and draft WSCP, though it is noted that there were no public comments.

The District Board of Directors approved resolutions to adopt the 2020 UWMP, WSCP, and Addendum to the 2015 UWMP in accordance with District Staff recommendations. A copy of the May 19, 2021 Agenda and the District's Agenda Report with recommended Staff action is provided as **Appendix M,** while the resolutions approving the 2020 UWMP, WSCP, and Addendum to the 2015 UWMP is included as **Appendix N**.

The final adopted 2020 UWMP and WSCP are posted on the District's website at https://encinitasca.gov/Government/Departments/San-Dieguito-Water-District/Engineering-Planning.

10.4 Plan Submittal

CWC 10621

> *(e) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021...*

CWC 10644

> *(a)(1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.*

CWC 10635

> *(c) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.*

2020 UWMPs and WSCPs must be submitted to DWR within 30 days of adoption and by July 1, 2021. UWMP submittal should be done electronically through the WUE Data Portal, an online submittal tool that will be updated for 2020 UWMPs and available in adequate time for UWMP submittal. In accordance with CWC 10644, District Staff submitted the 2020 UWMP electronically through the WUE Data Portal online submittal tool within 30 days of adoption (by June 18, 2021). The District also submitted copies of its adopted 2020 UWMP and WSCP to the California State Library, City of Encinitas, and County of San Diego within 30 days of adoption (by June 18, 2021).

2020 Urban Water Management Plan
Appendices

Final

Prepared By:

WOODARD &CURRAN

June 2021

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Appendix A: District Electronic Annual Report (EAR)

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Appendix A - District Electronic Annual Report (EAR)

LARGE WATER SYSTEM
2019 ANNUAL REPORT TO THE DRINKING WATER PROGRAM
FOR YEAR ENDING DECEMBER 31, 2019
[Section 116530 Health & Safety Code]

WATER SYSTEM INFORMATION	
Water System No:	CA3710021
Water System Name:	SAN DIEGUITO WD
Water System Ownership (See descriptions below):	Local Government
Physical location: *(address line 1, address line 2, city, zip)* *Note: NO P.O. Box*	160 CALLE MAGDALENA ENCINITAS 92024
General Office Phone: ⓘ *(with area code)*	760-633-2650
Web site address:	www.sdwd.org

BOXES COLORED YELLOW ARE MANDATORY QUESTIONS AND MUST BE ANSWERED TO COMPLETE THIS REPORT

Water System Ownership Descriptions:

- Local Government: e.g., city, county, or special district, local school district, junior colleges, county or community parks, etc.
- State or Federal Government: e.g., state or national park, BLM, USFS and COE campgrounds and recreation facilities, state hospitals, State universities and colleges, California Veterans Home, County or District Fairs and Expositions, Caltrans rest stop, military base, other state or federal facility
- Privately owned, non-PUC-regulated (Community Water System): e.g., mobile home park, apartment or condominium
- Privately owned business (non-community): e.g., church, private school, restaurant, amusement park, RV park/campground, motel, ranch/farm, factory, other business establishment

COMMUNITY WATER SYSTEMS ONLY

Your water system classification is: Community Water System

IF YOU ARE NOT A COMMUNITY WATER SYSTEM, SKIP THIS SECTION

CERTIFICATION FOR REDUCTION OF ANNUAL FEES FOR PUBLIC WATER SYSTEMS SERVING A DISADVANTAGED COMMUNITY (DAC) ⓘ

☐ By checking this box, you are a community water system who would like to request a fee reduction and is serving a DAC as defined in Title 22, Division 4, Chapter 14.5, section 64300 of the California Code of Regulations OR has previously submitted documentation to the State Water Resource Control Board certifying that you are serving a DAC.

To request a DAC fee reduction or to continue receiving a reduced annual fee you must complete a DAC certification form and upload the form to the "DAC" tab for the State Water Resources Control Board to review.

Click HERE for instructions on how to upload your completed DAC certification form. To upload a DAC Certification Form, click HERE

If you have questions about completing this section of the report, please contact the Program Liaison Unit at DDW-PLU@waterboards.ca.gov or call (916) 449-5158.

REPORT SUBMITTED BY: ⓘ	
Note: Your name and title, email address, and work phone number are disclosable report information that may be obtained through the Public Records Act.	
Name:	Isam Hireish
Title:	Assistant General Manager
Work phone:	7606332849
Cell phone:	

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Email address:	wateradmin@sdwd.org

Please be aware that all comment boxes throughout this electronic annual report will be made publicly available WITH THE EXCEPTION of the comment box below. Only Waterboard staff and other people with your water system's DRINC login credentials will have access to this comment box. You are encouraged to provide any comments that you believe may help improve this annual report process.

PRIVATE COMMENTS:

1. Public Water System Contacts

Click here to learn how to Modify, Add and Delete Contacts in the table below.

IMPORTANT: Each water system must have one and only one Administrative Contact AND one and only one Financial Contact. The same person may be both the Administrative and Financial Contacts.

Please provide an email address for the Administrative Contact as most email communication, particularly email blasts, from the Division of Drinking Water will be sent to the email address of the Administrative Contact.
PHONE TYPE: Home – if you use your home or personal phone number as your business number, use the HOME phone type instead and leave the BUSINESS phone type blank.
Only the BUSINESS phone type will appear in Drinking Water Watch (https://sdwis.waterboards.ca.gov/PDWW/), which can be viewed by the public, if the General Office phone number is not provided (see Water System Information section under the Intro tab).

EXISTING CONTACTS					
NAME, TITLE & ADDRESS	PHONE TYPE	PHONE NO.	EMAIL	CONTACT TYPE (pick all that apply)	
STANDING WARRIOR, ELIJAH	Business Home	858-227-5824	estandingwarrior@sfidwater.org	☐ ** Delete Contact ** ☐ Administrative	☐ Operator
CHIEF OPERATOR	Facsimile			☐ Financial	☐ Emergency
P.O. BOX 409	Mobile	858-395-9515		☐ Designated Operator In Charge	☑ Water Quality
RANCHO SANTA FE CA 92067	Emergency			☐ Owner	☐ Legal
				☐ Funding	☐ Contract Operator
AURORA, JOE	Business Home	760-633-2861	JAURORA@SDWD.ORG	☐ ** Delete Contact ** ☐ Administrative	☐ Operator
OPERATIONS MANAGER	Facsimile	760-436-3592		☐ Financial	☐ Emergency
160 CALLE MAGDALENA	Mobile	760-685-5563		☑ Designated Operator In Charge	☐ Water Quality
ENCINITAS CA 92024	Emergency			☐ Owner	☐ Legal
				☐ Funding	☐ Contract Operator
KNOLL, BLAIR	Business Home	760-633-2793	BKNOLL@SDWD.ORG	☐ ** Delete Contact ** ☐ Administrative	☑ Operator
SENIOR ENGINEER	Facsimile	760-436-3592		☐ Financial	☐ Emergency
160 CALLE MAGDALENA	Mobile	760-716-1382		☐ Designated Operator In Charge	☐ Water Quality
ENCINITAS CA 92024	Emergency			☐ Owner	☐ Legal
				☐ Funding	☐ Contract Operator
ROMERO, AMBER		760-633-2855	aromero@sdwd.org		☐ Operator

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	Business			☐** Delete Contact **	
	Home			☐Administrative	
FINANCIAL ANALYST	Facsimile			☑Financial	☐Emergency
160 CALLE MAGDALENA	Mobile			☐Designated Operator In Charge	☐Water Quality
ENCINITAS CA 92024	Emergency			☐Owner	☐Legal
				☐Funding	☐Contract Operator
QUIRAM, CARL	Business	760-633-2858	cquiram@sdwd.org	☐** Delete Contact **	☐Operator
	Home			☐Administrative	
GENERAL MANAGER	Facsimile			☐Financial	☐Emergency
160 Calle Magdalena	Mobile	760-685-0535		☐Designated Operator In Charge	☐Water Quality
ENCINITAS CA 92024	Emergency			☑Owner	☐Legal
				☐Funding	☐Contract Operator
	Business			☐** Delete Contact **	☐Operator
	Home			☐Administrative	
	Facsimile			☐Financial	☐Emergency
	Mobile			☐Designated Operator In Charge	☐Water Quality
	Emergency			☐Owner	☐Legal
				☐Funding	☐Contract Operator
	Business			☐** Delete Contact **	☐Operator
	Home			☐Administrative	
	Facsimile			☐Financial	☐Emergency
	Mobile			☐Designated Operator In Charge	☐Water Quality
	Emergency			☐Owner	☐Legal
				☐Funding	☐Contract Operator
	Business			☐** Delete Contact **	☐Operator
	Home			☐Administrative	
	Facsimile			☐Financial	☐Emergency
	Mobile			☐Designated Operator In Charge	☐Water Quality
	Emergency			☐Owner	☐Legal
				☐Funding	☐Contract Operator

NEW CONTACTS

Add Additional Contact				(pick all that apply)	
ISAM HIREISH	Business	(760) 633-2849	ihireish@sdwd.org	☑Administrative	☐Operator
ASSISTANT GENERAL MANAGER	Home			☐Financial	☐Emergency
			XXXXX@XXXXX.XXX		☐Water Quality

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160 CALLE MAGDALENA --Address Line 2--	Facsimile Mobile	(760)436-3592		☐Designated Operator In Charge	
ENCINITAS CA 92024	Emergency	(760) 685-0109		☐Owner	☐Legal
				☐Funding	☐Contract Operator
Add Additional Contact				(pick all that apply)	
TIMOTHY BAILEY	Business	(858) 227-5824		☐Administrative	☐Operator
BADGER FILTRATION PLANT MANAGER	Home		tbailey@sfidwater.org	☐Financial	☐Emergency
PO BOX 409 --Address Line 2	Facsimile Mobile	(999) 999-9999 (858) 602-7621	XXXXX@XXXXX.XXX	☐Designated Operator In Charge	☑Water Quality
RANCHO SANTA FE CA 92067	Emergency	(999) 999-9999		☐Owner	☐Legal
				☐Funding	☐Contract Operator
Add Additional Contact				(pick all that apply)	
	Business	(999) 999-9999		☐Administrative	☐Operator
	Home	(999) 999-9999	XXXXX@XXXXX.XXX	☐Financial	☐Emergency
--Address Line 2--	Facsimile Mobile	(999) 999-9999 (999)999-9999	XXXXX@XXXXX.XXX	☐Designated Operator In Charge	☐Water Quality
	Emergency	(999) 999-9999		☐Owner	☐Legal
				☐Funding	☐Contract Operator
Add Additional Contact				(pick all that apply)	
--Contact Name--	Business	(999) 999-9999		☐Administrative	☐Operator
--Title--	Home	(999) 999-9999	XXXXX@XXXXX.XXX	☐Financial	☐Emergency
--Address Line 1-- --Address Line 2--	Facsimile Mobile	(999) 999-9999	XXXXX@XXXXX.XXX	☐Designated Operator In Charge	☐Water Quality
--City-- --ST-- 99999	Emergency	(999) 999-9999		☐Owner	☐Legal
				☐Funding	☐Contract Operator

COMMENTS (Note: Comments will be made publicly available):

2. POPULATION SERVED

Permanent population or number of long-term residents*:	39125

**Long-term resident* means someone who resides within the water system service area for more than half of the year.

Method used to determine population:	Multiplied number of service connections by 3.3

If permanent population is based on "Other", identify the methods or sources of how it was estimated:

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Seasonal Maximum Population (If applicable):	

Provide season ⓘ :

Begin Date		End Date	
MM	DD	MM	DD

List the names of communities served by the system identifying both incorporated and unincorporated areas:

COMMENTS (Note: Comments will be made publicly available): ⓘ

3. NUMBER OF SERVICE CONNECTIONS *(as of December 31, 2019)*

A. Active Service Connections:

Total Active Potable Water Connections currently in Division of Drinking Water database:	11666

The total number of Service Connections as of December 31, 2019 must be reported as either Unmetered or Metered for each Service Connection Type as appropriate.

	Potable Water		
TYPE **Do NOT report fire sprinkler connections and fire hydrants. These connections are not counted toward "service connections" for compliance purposes.**	Unmetered	Metered	Total*
Single-family Residential: single family detached dwellings	0	9234	9234
Multi-family Residential: Apartments, condominiums, town houses, duplexes and trailer parks	0	1708	1708
Commercial/Institutional: Retail establishments, office buildings, laundries, schools, prisons, hospitals, dormitories, nursing homes, hotels, churches, campgrounds	0	625	625
Industrial: All manufacturing	0	0	0
Landscape Irrigation: Parks, play fields, cemeteries, median strips, golf courses	0	207	207
Agricultural Irrigation: Irrigation of commercially-grown crops	0	82	82
Total Active Connections*	0	11856	11856

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*Calculated field

To update totals click here

If the connection categories below include some portion of residential connections, please check the boxes below:

☑ Commercial/Institutional

☐ Industrial

☐ Landscape Irrigation

B. Number of Inactive Connections (all types) Include only service connections that have been physically disconnected (e.g., meter removed) from the water system. All other service connections should be considered as "Active."	

C. **Outdoor or Indoor meters/submeter**

Only **Urban Water Suppliers** answer the questions below

Does your water system keep records on outdoor irrigation meters or commercial, institutional, or industrial indoor submeters? --Pick one--

If "no", skip questions C1-C4 in this section and question 6B2 in Section 6B, Deliveries.

C1. Number of NON-residential customers that have dedicated outdoor irrigation meters (excluding agricultural connections)	

C2. Number of Single-Family Residential customers with dedicated outdoor irrigation meters?

C3. Number of Multi-Family Residential customers with dedicated outdoor irrigation meters?

C4. Number of Commercial, Institutional and Industrial customers with indoor submeters?

COMMENTS (Note: Comments will be made publicly available):

4. GROUNDWATER (GW) AND SURFACE WATER (SW) SOURCES

Type	Total No. Active	Total No. New/ Added in 2019	Total No. Inactivated in 2019	Total No. Destroyed in 2019
Active Groundwater Intakes (Wells)				
Active Surface Water Intakes (Raw)	3			
Active Purchased Water (GW) Connections				
Active Purchased Water (SW) Connections	1			
Standby Sources[1]				
Emergency Interconnections	7			
Inactive Sources[2]				

Are your active water sources metered? Yes

Do you routinely monitor the *static* water levels in your wells? Not Applicable (no wells)

Do you routinely monitor the *pumping* water levels in your wells? Not Applicable (no wells)

Are these levels recovering, declining or steady? Not Applicable (no wells)

[1]**If a standby source was used in 2019**, provide the following information.

Name of the Standby Source used in 2019:	No. of days the Standby Source was in operation:	Were customers notified? (Y/N)	Was the Division of Drinking Water notified? (Y/N)	Describe the reason the Standby Source was used:

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[2]Inactive sources are not approved as sources of supply and must be physically disconnected or similarly isolated.

COMMENTS (Note: Comments will be made publicly available): ⓘ

5. WATER PRODUCED, PURCHASED AND SOLD

The **Maximum Day** is the day during 2019 with the highest total water usage. Provide the *date* for that day in Column B, then complete Columns C, D and E, indicating how much of the water on that day was from each source.

Important Note Concerning Recycled Water Questions:

The California Water Code Section 10609(c)(4) states: *"The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers."*

It has come to the Division of Drinking Water's attention that, between this Electronic Annual Report and other reports, some public water systems experience (at least some) redundant reporting of recycled water information to the Division of Drinking Water.

If some or all of the quantities are reported elsewhere, check this box: ☐. Answer any questions below that are not reported elsewhere and leave the reported quantities blank in the table. Please note in the comments where these quantities were reported.

Leave recycled water cells blank ONLY IF it is reported elsewhere on other reports indicated below, otherwise enter zero or the actual figure.

Name of report(s) containing the information requested in this Electronic Annual Report for reporting year 2019: Operations Report

Regulatory entity receiving the report(s), contact name, and phone number: DDW, Tuba Ertas, 619-525-4493

Units of Measure for tables in Section 5A: Acre-feet (AF)

Volumes are based on: METERED VOLUMES

Table 5A: Water Produced, Purchased, and Sold

A	B	C	D	E	F	G	H	I
		Potable Water						
	Date/ Month	Water Produced from Groundwater (Wells)	Water Produced from Surface Water[2]	Potable Water Received from another PWS[5]	Total Amount of Potable Water[3*]	Water Sold to Another PWS[5]	Non-potable (exclude recycled)[6]	Recycled[7] ⓘ
Check here if no production for every month		☐	☐	☐		☐	☐	☐
Maximum Day[1]	04/08		16	6	22			
January		0	108	208	316	0	0	8
February		0	67	191	258	0	0	4
March		0	149	192	341	0	0	12
April		0	251	225	476	0	0	65
May		0	230	244	474	0	0	42
June		0	342	197	539	0	0	71
July		0	336	270	606	0	0	83

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August	0	290	338	628	0	0	84
September	0	243	332	575	0	0	86
October	0	241	326	567	0	0	77
November	0	140	327	467	0	0	41
December	0	109	231	340	0	0	11
Annual Total*	0	2506	3081	5587	0	0	584
Percent Treated[4]							

PWS = Public Water System

*Calculated field

Non-potable = water supplies, except recycled water, that do not enter the drinking water distribution system and are for non-potable uses only such as irrigation

Recycled = domestic wastewater which as a result of treatment is suitable for uses other than potable use such as irrigation or toilet flushing

[1]Only report Maximum Day if it is actually measured or determined from production records. It should not be the average day demand during the maximum month of production.

[2]Do not include raw water purchased, report only volume of water that was treated.

[3](F) Total Amount of Potable Water = Sum of Columns (C), (D) and (E), automatically calculated. Total water production includes water that is sold to another water system. To update, click below

To update totals click here

[6] Non-potable = water supplies, except recycled water, that do not enter the drinking water distribution system and are for non-potable uses only such as irrigation

[7] Recycled = domestic wastewater which as a result of treatment is suitable for uses other than potable use such as irrigation or toilet flushing. The recycled water collected in this table should be the non-potable recycled water which is used to substitute potable water or untreated surface and well water. If the recycled were not available, potable or untreated surface and well water needs to be used. Example, a landscape used to be irrigated using potable water but now using recycled water.

[4]This is the percentage of the total annual volume for Groundwater produced that was provided treatment to meet drinking water standards other than precautionary disinfection and fluoridation.

[5]If water was *Purchased/received* from or *Sold/delivered* to another PWS, complete the table below:

Specify whether water was *Purchased* or *Sold or Transferred*	Name of PWS
Purchased	San Diego County Water Authority

If recycled water was *supplied* to *your water system's customers*, complete the table below:

Specify the level of treatment (e.g., tertiary, disinfected secondary)	Name of Recycled Water supplier
Tertiary	San Elijo Joint Powers Association

COMMENTS (Note: Comments will be made publicly available):

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6. WATER RATES, AFFORDABILITY, AND FINANCES

A. WATER RATES

Does your water system charge customers for water (residential, commercial, industrial, or institutional water customers)? Yes

If yes, complete Section 6A. If no, explain why: --Pick One--

Comments (if "other" selected above): NA
If you do not have water rates, go to **Section 6B, Deliveries**.

If you have questions about completing this section of the report, please contact Mary.Yang@Waterboards.ca.gov, 916-322-6507

A1. RESIDENTIAL WATER RATES

Complete this section if you have residential water rates. If no, mark this box: ☐ **and go to Section A6, Non-residential Water Rates.**

If you are a water supplier without water rates, check this box ☐**, then move to Section 6B Water Deliveries.**

A1.a. Indicate the type of residential water rate structure used by your water system (select those that apply):

Base Rate – (Non-Volumetric Rates)

☐ Fixed Base Rate - Basic or fixed charge that is the same for all customers regardless of use.

☑ Variable Base Rate - Basic charge is different for customers depending on size of pipe, water meter, elevation, peak use, or other factors.

Usage Rate (Volumetric Rates)

☐ Uniform Usage Rate - The charge per 100 cubic feet of water is the same regardless of use.

☑ Variable Usage Rate - Increasing Block or Tier Rate. The charge per 100 cubic feet or other increment of water increases as water use increases.

Other Rates

☐ Flat Rate (often unmetered)- One rate for providing drinking water regardless of the volume of water used, not combined with a usage rate.

If you have a Flat Rate, please skip questions A1.d, A1.e, A1.g, A1.h. Enter your flat rate in A3.

☐ Allocation Based

☐ Other rate structure (specify your rate structure in the comment box, provide a weblink 1j below)

A1.b. Comments on rate structure (Note: Comments will be made publicly available): NA

A1.c. What is your billing frequency?	bi-monthly
A1.d. If charges change with different levels of water consumption or features, what is the number of tiers or levels of charges for single-family customers?	4
A1.e. If charges change with different levels of water consumption or features, what is the number of tiers or levels of charges for multi-family customers?	4
A1.f. Mark below any variances or factors used to determine or adjust residential water rates or water allocations.	
☑ Agricultural use (non-commercial or commercial)	
☐ Drought factor	
☐ Elevation	
☐ Evaporative Coolers	
☐ Fire protection - water to irrigate vegetation	
☐ Home-based business	
☐ Livestock or large animals	
☐ Lot size	
☐ Medical needs	
☐ Meter size	
☐ Mitigation of high levels of total dissolved solids	
☐ Occupancy (All-year)	
☐ Occupancy (Seasonal)	
☐ Pressure zone	
☐ Soil compaction and dust control	
☐ Supplement ponds and lakes to sustain wildlife	
☐ Other : NA	
☐ None of the above	
A1.g. Units of Measure (UOM) for this table on Residential Water Rates:	Hundred Cubic Feet

A1.h. Table on Residential Water Rates, Single-family and Multi-family

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If your water system uses an allocation or flat base rate structure, add a direct weblink to more information on your rate structure (A1.k or A1.h), provide information in the box "Comments on Residential Rate Structure" (A1.m), and leave this table blank.

Provide information on residential water rates based on consumption. *If a feature of your rate structure, (e.g., meter size, elevation, or other) affects water rates, provide the water rate associated with the most common situation. Enter zero "0" if not applicable.* See examples

	Single-family Rates		Multi-family Rates	
	Upper volume of water included in base rate in Units of Measure (UOM) If there is no base rate or volume of water associated with a base rate, enter the number zero "0".	Cost per Billing Period (Dollars)	Upper volume of water included in base rate in Units of Measure (UOM) If there is no base rate or volume of water associated with a base rate, enter the number zero "0".	Cost per Billing Period (Dollars)
Base Rate (non-volumetric rates)	0	48.43	0	48.43

NEW

(Lower level instead of higher level)
The rows that follow do not include a base rate or fixed charge.

Usage Rate (volumetric rates)	**Lower level of water volume for each level in UOM**	**Cost per UOM (Dollars)**	**Lower level of water volume for each level in UOM**	**Cost per UOM (Dollars)**
Rate Structure level 1	1	2.99	1	2.99
Rate Structure level 2	13	4.75	9	4.75
Rate Structure level 3	21	5.87	13	5.87
Rate Structure level 4	41	6.69	17	6.69
Rate Structure level 5	0	0	0	0
Rate Structure level 6	0	0	0	0
Rate Structure level 7	0	0	0	0

A1.i. Date of most recent update to the rate structure (this does not include regularly scheduled rate changes, rather actual changes to your rate structure): **MM/DD/YYYY**	05/01/2019
A1.j. Describe the rate structure changes to rate changes that were made in the update	6.5% increase
A1.k. Provide a direct link to a web page that explains water rates and fees, if available.	https://encinitasca.gov/Portals/0/City%20Documents/Documents/San%20Dieguito%20Water%20District/Customer%20Service%20and%20Billing/SDWD_050119_WaterRateSchedule.pdf

A1.l. If a webpage with rate information is not available, Send an email (click here) with the document, **subject line: PWSID CA_____ and Rate Information**

A1.m. Comments on Residential Rate Structure. Explain allocation rate, if applicable.

A2. RESIDENTIAL SERVICE CONNECTIONS

A2.a. Select the most common single-family residential meter size	3/4 inch
A2.b. Select the most common multi-family residential meter size	3/4 inch
A2.c. What is, approximately, the service connection fee for a ***single-family brand-new construction*** based on the most common meter size listed above ($)?	12998
A2.d. Date of most recent update to the new connection fee for a single-family brand-new construction: **MM/DD/YYYY**	01/01/2020
A2.e. What is the one-time fee or deposit needed to create a new water service account for an ***existing single-family home*** based on the most common meter size indicated above ($)?	20
A2.f. What is, approximately, the connection fee for a ***multi-family brand-new construction*** based on the most common meter size indicated above ($)?	12998

A2.g. Check items included in new residential connection fees:

☑	Existing infrastructure buy-in (e.g., water treatment/ conveyance/sewage treatment)
☐	Upgrades to infrastructure (seismic retrofits, pipe replacements, etc.)
☐	Storm water management system

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☐	Debt service charge
☐	Development of new water supplies
☐	Other : NA

A2.h. Comments on Residential Service Connections (publicly available).

A3. AFFORDABLE DRINKING WATER

For each amount of water delivered to a single-family residential customer shown below, what is charged (in dollars) to a customer?

For each of the three water volumes shown below, provide what would be the monthly water bill for a single-family residential customer. Enter the monthly Water Charges and Other Charges for each water volume. For example, if a single-family customer used 12 HCF in a month, the total bill would include water charges for using 12 HCF and other charges that are added to the bill. Other charges vary locally and may include property tax, city tax, utility users tax, services for fire suppression, waste water or sewer, stormwater or other non-water surcharges, electricity. If the "other charges" varies by certain features (e.g., by climate, lot size, landscaped area) use the lowest or most common charge in your calculation. Click the "Update Totals" button to automatically add the charges together to show a Total Monthly Water Bill that a residential customer would pay when its household used the specified amount of water.

For water systems with an allocation rate (also called "budget rates") see additional guidance ⓘ

NEW To be consistent with California's Human Right to Water Law and Conservation Law, the questions in this section ask for water charges associated with 6, 9, 12 and 24 hundred cubic feet (HCF) of water. Information on 9 HCF is new.

A3.a. 6 HCF ⓘ

Drinking Water Charges (Fixed and variable water charges)	33.19	Dollars/month
Other Charges (e.g., property tax, fire suppression, waste water, other)	0	Dollars/month
Total Monthly Water Bill (Automatic sum of Water Charges and Other Charges)*	33.19	Dollars/month

A3.b. 9 HCF ⓘ NEW

Drinking Water Charges (Fixed and variable water charges)	37.67	Dollars/month
Other Charges (e.g., property tax, fire suppression, waste water, other)	0	Dollars/month
Total Monthly Water Bill (Automatic sum of Water Charges and Other Charges)*	37.67	Dollars/month

A3.b. 12 HCF ⓘ

Drinking Water Charges (Fixed and variable water charges)	42.16	Dollars/month
Other Charges (e.g., property tax, fire suppression, waste water, other)	0	Dollars/month
Total Monthly Water Bill (Automatic sum of Water Charges and Other Charges)*	42.16	Dollars/month

A3.c. 24 HCF ⓘ

Drinking Water Charges (Fixed and variable water charges)	72.90	Dollars/month
Other Charges (e.g., property tax, fire suppression, waste water, other)	0	Dollars/month
Total Monthly Water Bill (Automatic sum of Water Charges and Other Charges)*	72.9	Dollars/month

*If "Other Charges" varies, (e.g., by climate, lot size, landscaped area, or other features) use the lowest charge in your calculation.

Calculated field: To update calculated field, click button below

To update totals click here

A3.e. Describe what is included in "Other Charges" (mark those that apply).

- ☐ Property Tax
- ☐ City Tax or Fee
- ☐ Utility User Tax or Fee
- ☐ Fire Suppression or Fire Protection Services Tax or Fee
- ☐ Wastewater or Sewer Tax or Fee
- ☐ Stormwater Tax or Fee
- ☐ Electricity Tax or Fee
- ☐ Other non-water charges and fees that are included on water bills, explain below

Other: NA

A3.f. Comments on Affordable Drinking Water (publicly available):

A4. SHUT-OFFS ⓘ

Completing this section will fulfill State Water Resources Control Board requirements of Senate Bill 998 – Discontinuation of residential water service, which are mandatory as of April 1, 2020.

Click the "Update Totals" button to automatically add the Single Family and Multifamily Accounts

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Community Water Systems that have water rates and more than 200 connections must complete this section. If your community water system does not meet these criteria for completing this Section, then you must mark the boxes "did not collect information" below in order to avoid completion errors.

If a water supplier tracks the number of services connections but did not collect information on whether residences were occupied or unoccupied at the time of disconnection, put the total number of disconnections in the "unknown accounts" column in the tables in this section.
If a water supplier does not differentiate between single-family or multi-family, then enter all information as single-family.

Click the "Update Totals" button to automatically sum the Single Family and Multifamily Accounts.

For section A4, select the reporting year for your answers ⓘ: Calendar Year (Jan-Dec 2019)

Residential Shut-offs and Reconnections

A4. This section has several questions on water services. Are you able to provide information on drinking water services alone, or are water services combined with non-water services (e.g., electricity, trash removal services) so your responses cover more than just water services? ⓘ
Information for water services only

A4.a How many accounts for residential service connections had their water shut off once during the year due to failure to pay?

If this information is only available for accounts that had their water shut off at least once, then check this box ☑ and complete the table below and skip question A4.c

If there was no information collected for question A4.a, then mark this check box ☐ and skip below table.

	Occupied Accounts	Unoccupied Accounts	Unknown Accounts ⓘ	Total*
Single-Family Accounts	0	0	83	83
Multi-family Accounts	0	0	0	0

A4.b. What is the average amount owed at the time of shut-off? $ 0 Mark the box if unknown ☑

A4.c. How many accounts for residential service connections had their water shut off more than once during the year due to failure to pay?

If there was no information collected for question A4.c, mark this box ☑ and skip below table.

	Occupied Accounts	Unoccupied Accounts	Unknown Accounts ⓘ	Total*
Single-Family Accounts				0
Multi-Family Accounts				0

A4.d. What is the residential fee, including all administrative and processing fees, to restore drinking water service due to failure to pay during **operating hours**? ⓘ

Single-Family Accounts 40
Multi-family Accounts 40

A4.e. What is the residential fee, including all administrative and processing fees, to restore drinking water service due to failure to pay during **non-operating hours**? ⓘ

Single-Family Accounts 0
Multi-Family Accounts 0

A4.f. What was the median duration of the shut-offs (in days) for continuously occupied residential service accounts? ⓘ

If there was no information collected for question A4.f, mark the check box "Did not collect median duration of shut-offs (in days) for occupied residents" ☑ and skip below table.

	Occupied Accounts	Unoccupied Accounts	Unknown Accounts ⓘ
Single-Family Accounts	0		
Multi-Family Accounts	0		

A 4.g How many of these shut-offs are returned to service within one-day (or 24-hours)?
This answer covers: --Pick one--

A4.h. If you offer an extended repayment or other customer payment assistance plan, how many continuously occupied residential customer accounts participated?

Single-Family Accounts 0
Multi-family Accounts 0
Total* 0

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A4.i. How many of the continuously occupied residential accounts were shut off at least once during the year and were enrolled in an extended repayment plan or other customer payment assistance plan at the time of the service disconnection?

Single-Family Accounts	
Multi-family Accounts	
Total*	0

*Calculated field, to update calculated fields in this section, click button below

To update totals click here

The *Water Shutoff Protection Act* (SB 998, 2018) requires community water systems that have more than 200 connections to have shutoff policies completed by April 1, 2020. Mark this box if your water system has less than 200 service connections ☐

A4.j Provide a direct weblink to your shutoff policy as required by the Water Shutoff Protection Act: https://encinitasca.gov/Portals/0/City%20Documents/Documents/San%20Dieguito%20Water%20District/Customer%20Service%20and%20Billing/Discontinuation%20of%20Water%20Service%20Policy.pdf
If your water agency doesn't have a website and for this reason is unable to post your shutoff policy, email your shutoff policy. Send an email (click here) with the document, Subject line: PWSID CA_ _ _ _ _ _ _ and Shutoff Policy

A4.k. What is the number of residential accounts (single-family, multi-family, and mixed use that include residential) that were missing one or more required water bill payments at the end of your year? 0

A4.l. For A4.k accounts, what is the sum of outstanding uncollected residential (single-family, multi-family, and mixed use that include residential) bills at the end of your most recent year? 0 ☑ Not determined

A4.m. Comments on Shut-offs (publicly available):

A5. Affordable Drinking Water Assistance

For section A5, select the reporting year for your answers: Calendar Year (Jan-Dec 2019)

A5.a. Do you provide options for low-income assistance? If you selected "No", skip questions A5b-A5h.	No
A5.b. If yes, how many residential accounts received the low-income subsidy?	0
A5.c. If yes, how was the program funded?	0
A5.d. How much funding was allocated to the program in 2019?	0

A5.e Does your program provide benefits to single-family only, or single-family and multi-family? (select answer)
--Pick one--

A5.f. What was the average benefit amount for a single-family account in one month?
Amount and Unit of Measure: 0 --Pick one--

A5g. What was the average benefit amount for a multi-family account in one month?
Amount and Unit of Measure: 0 --Pick one--

A5.h If your system partners with an outside entity (e.g., United Way) to provide assistance to low income households, list the name of organization(s) and the amount of the benefit (in dollars) provided
Dollars provided: 0 Time Period: --Pick one--

A5.i. OTHER FORMS OF ASSISTANCE TO ALL RESIDENTIAL CUSTOMERS. What type of bill assistance was provided? (Check all that are applicable)

☑ Flexible or alterative Payment Terms	Number of Accounts 0	Average Bill $ 0	☑ Information Not Collected or Not Offered
☐ Temporary Assistance	Number of Accounts	Average Bill $	☑ Information Not Collected or Not Offered
☐ Special Medical Need	Number of Accounts	Average Bill $	☑ Information Not Collected or Not Offered
☐ Other Please describe:	Number of Accounts	Average Bill $	

A5.j Do you have a process that can offer bill forgiveness under certain circumstance? No

If yes, Number of Accounts Average Bill $ ☐ Information Not Collected

A5.k Comments on Affordable Drinking Water Assistance (publicly available):

A6. NON-RESIDENTIAL WATER RATES

If you have non-residential water rates, complete this section. If no, mark this box: ☐ **and** go to Section 6B, Deliveries

A6.a. Select the most common non-residential meter size: 2 inch

A6.b. What is your billing frequency for non-residential customers? bi-monthly

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A6. c. Does your water system use an allocation rate for non-residential accounts? No
If yes, skip table A6d. In the comment box A6.e provide a weblink to more information on the allocation rates.

A6.d. Complete the table below providing specific water rates applied to your **non-residential** customers:

Connection Type	BASE RATE (BR)	If BR + UUR, what is the volume allowed before UUR applies	UNIFORM USAGE RATE (UUR)	VARIABLE BASE RATE (provide range) (VBR)		VARIABLE USAGE RATE (provide range) (VUR)	
	$ (Base)	HCF	$ per HCF	$ Low	$ High	$ per HCF Low	$ per HCF High
Commercial	5.09						
Institutional	5.57						
Industrial							
Landscape Irrigation	5.87						
Agricultural Irrigation	5.09						
Other							

A6.e Comments on non-residential water rates (publicly available):

B. WATER DELIVERIES

Check this box ☐ if your water system does not have monthly water deliveries data and skip the rest of Section B.

Important Note Concerning Recycled Water Questions:

The California Water Code Section 10609(c)(4) states: *"The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers."*

It has come to the Division of Drinking Water's attention that, between this Electronic Annual Report and other reports, some public water systems experience (at least some) redundant reporting of recycled water information to the Division of Drinking Water.

If some or all of the quantities are reported elsewhere, check this box: ☑. Answer any questions below that are not reported elsewhere and leave the reported quantities blank in the table. Please note in the comments where these quantities were reported.

Leave recycled water cells blank ONLY IF it is reported elsewhere on other reports indicated above, otherwise enter zero or the actual figure.

Name of report(s) containing the information requested in this Electronic Annual Report for reporting year 2019: Urban Water Supplier Reporting tool

Regulatory entity receiving the report(s), contact name, and phone number: State Water Resources Control Board

Units of Measure (UOM) for this table: 100 cubic feet

Provide monthly **metered** water deliveries for all water sources (potable and non-potable) in the table below. If you have partially metered or unmetered water deliveries, check the help tips for additional guidance as you may be able to provide information.

Table 6B Water Deliveries Before you begin, make sure that the water volume values entered in **Section 5A Water Supplied** and **Section 6B Water Deliveries** are consistent with each other and that they refer to the same population from **Section 2 Population** ("permanent population of number of long-term residents").

A	B	C	D	E	F	G	H	I	J
	Single-family Residential	Multi-family Residential	Commercial/ Institutional	Industrial	Landscape Irrigation	Other	Total Retail[1*]	Agricultural	Other PWS[2]
Check if no water is delivered or not applicable	☐	☐	☐	☐	☐	☐		☐	

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January	82413	38254	16150	0	7657	0	144474	11167	0
February	76739	32978	24676	0	3856	0	138249	1031	0
March	51734	30497	12312	0	2410	0	96953	8988	0
April	610781633	35655	27583	0	5266	0	610850137	1463	0
May	111103	51864	22622	0	10272	0	195861	17166	0
June	83481	23176	24014	0	14400	0	145071	2155	0
July	110162	40363	17915	0	14730	0	183170	16664	0
August	143231	44165	38161	0	22093	0	247650	5241	0
September	133050	45751	19398	0	16134	0	214333	20573	0
October	151432	45874	38614	0	22223	0	258143	5124	0
November	108541	39235	15849	0	15513	0	179138	16001	0
December	124036	42651	33376	0	13649	0	213712	2521	0
Annual % recycled water									
Annual % non-potable water									
Total*	611957555	470463	290670	0	148203	0	612866891	108094	0

PWS = Public Water System

*Calculated field

[1]Total Retail = Sum of Columns (B) thru (G), automatically calculated. To update, click below

[2] "Other PWS" values are prefilled from the Section 5 Table, Column G

To update totals click here

B1. Mark boxes below:

If the delivery categories below include some portion of residential deliveries, please check the boxes below:

- ☑ Commercial/Institutional
- ☐ Industrial
- ☐ Landscape Irrigation

If you have questions about this please contact State Water Board staff by email at: waterconservation@waterboards.ca.gov. This information is being asked at this time to help staff estimate the impacts of SB 606 and AB 1668, as required for the regulatory process.

Only answer question B2 if your system is an Urban Water Supplier with dedicated outdoor irrigation meters ⓘ

B2. What is the annual volume of outdoor irrigation water used on landscape areas with dedicated irrigation meters in connection with commercial, institutional, and industrial (CII) water use?

a. Unit of Measure 100 cubic feet

b. Volume of water 148203

c. Water system does not collect this information (mark box if applies) ☐

Comments ⓘ

B3. If known, indicate what percentage of total annual urban water deliveries (see column H in Table 6B) is used for irrigation of:

a. Developed and natural parklands ⓘ

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b. Publicly maintained urban trees (outside of parklands)

c. Water system does not collect this information (mark box if applies) ☑

COMMENTS (Note: Comments will be made publicly available): ⓘ

7. WATER QUALITY

Date of Emergency Notification Plan	05-30-20
Is the Emergency Notification Plan up to date?	Yes If no is selected, please upload a revised WQENP.

DIRECT ADDITIVES

Pursuant to Section 64590, Title 22 of the California Code of Regulations, (effective January 1, 1994), all chemicals or products, including chlorine, added directly to the drinking water as part of a treatment process must meet the ANSI/NSF Standard 60. Please complete the following table for each chemical used by this water system. If you are not sure whether a chemical you are using meets this standard, contact the manufacturer or distributor of the chemical.

If you do not use any direct additives, put "NONE" in each column of the first row.

*Click here to upload an Excel spreadsheet of your water system's Water Quality Direct Additives *

Name of Chemical	Name of Manufacturer	Purpose of using chemical	Chemical is ANSI/NSF Standard 60 certified ⓘ (Y/N)	Use initiated in 2019 ⓘ (Y/N)
Aluminum Chlorohydrate	CalChem	Coagulation	Y	N
Cationic Polymer	Polydyne	Coagulation	Y	N
Chlorine	JCI Jones	Disinfection	Y	N
Ammonia	Hill Brothers Chemical Co	Disinfection	Y	N
SODIUM CHLORITE	UNIVAR	DISINFECTANT	Y	N
SODIUM HYDROXIDE	BRENTAG	PH CONTROL	Y	N

INDIRECT ADDITIVES

As of March 9, 2008, a water system shall not use any chemical, material, lubricant, or product in the production, treatment or distribution of drinking water that comes in contact with the drinking water that does not have certification of meeting NSF/ANSI standard 61.

Does your water system have procedures to ensure all future equipment and materials meet this standard?	Yes

If you have any questions on the requirements related to indirect additives, you may contact your local regulatory agency.

COMMENTS (Note: Comments will be made publicly available): ⓘ

8. CROSS-CONNECTION CONTROL ⓘ

	Total Number in	Number Installed in 2019	Number Tested in 2019 [1]	Number Failed in 2019	Number Repaired/ Replaced

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	System in 2019 [1]				
Backflow Assemblies on the Service Connections or Meter (Reduced Pressure Principle and Double Check Valve assemblies)	1384	23	1407	164	164
Backflow Assemblies On-site but not on the Service Connections or Meter (Reduced Pressure Principle and Double Check Valve assemblies)	60	0	60	0	0
Air-gap Separation	4	0			

Notes:

[1] **Total Number in System in 2019** – Total number of active Backflow Prevention Assemblies including new devices installed in 2019, but excluding inactive devices.
[2] **Number Tested in 2019** – includes all active devices that were tested in 2019 and either passed or failed.

No. of *Inactive* Backflow Prevention Assemblies in water system in 2019:			5
Date of last cross-connection control survey done on the system: If ongoing, enter the last day of the year, e.g., 12/31/2019			12/31/2019
Cross Connection Control Program Coordinator			
Name:			Steve McSpadden
Certification Number:			02038
Business Phone:	760-633-2866	Email Address:	smcspadden@sdwd.org
Certification or training received: Cross Connection Specialist, AWWA Backflow tester			

Describe any cross-connection incidents that occurred during 2019:

COMMENTS (Note: Comments will be made publicly available):

9. OPERATOR CERTIFICATION

A. Please list the State certified Water **Treatment Plant Operators** employed by your water system that supervise and direct the operation of your water treatment plants, beginning with the chief operator(s).

Your Highest Treatment System Classification is: There are no facilities subject to the Certified Treatment Plant Operator requirements

☑ Check this box if your public water system has designated a Chief Treatment Operator.

Name of Chief Treatment Operator (First name Last name): Elijah Standing Warrior
Grade of Chief Treatment Operator (1, 2, 3, 4 or 5): 5
Treatment Operator Number (4 or 5 digits): 24846
Treatment Certification Expiration Date (MM/DD/YYYY): 10/02/2020
•Click here to upload an Excel spreadsheet of your water system's certified water treatment operators.*

Treatment Operator Name (First name Last name)	Grade of Treatment Operator (1, 2, 3, 4, or 5)	Chief or Shift[1] (C, S or X)	Treatment Operator Number (4 or 5 digits)	Treatment Certification Expiration Date (MM/DD/YYYY)
Tommy Booker	4	s	22153	09/01/2021
Mike Andrews	4	s	15920	08/01/2021

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Eric Patterson	4	s	32047	12/01/2020
Ken Buckley	3	s	22159	08/01/2022
Eli Standing Warrior	5	C	24846	10/01/2020
Chez Madrid	3	S	36386	12/01/2021
Eric Patterson	4	S	32047	07/01/2022
Marco Martinez	3	X	35150	12/01/2020
Aaron Huff	4	X	26888	06/01/2022
Brandon Fox	2	X	38852	11/01/2022
David Harris	3	X	24410	10/01/2022

[1]Use "C" for Chief Operator and "S" for Shift Operator. If neither, put an "X". Do not leave blank.

Do your Chief and Shift Treatment Plant Operators have the minimum level required? Yes

B. Please list the State certified Water **Distribution System Operators** employed by your water system that supervise and direct the operation of your distribution systems, beginning with the chief operator(s)

Your Distribution System Classification is: D3

☐ Check this box if your public water system has designated a Chief Distribution Operator.

Name of Chief Distribution Operator (First name Last name): Joe Aurora
Grade of Chief Distribution Operator (1, 2, 3, 4 or 5): 3
Distribution Operator Number (4 or 5 digits): 4499
Distribution Certification Expiration Date (MM/DD/YYYY): 03/21/2021

Click here to upload an Excel spreadsheet of your water system's certified distribution operators.

Distribution Operator Name (First name Last name)	Grade of Distribution Operator (1, 2, 3, 4, or 5)	Chief or Shift[1] (C, S or X)	Distribution Operator Number (4 or 5 digits)	Distribution Certification Expiration Date (MM/DD/YYYY)
Joe Aurora	D3	C	4499	3/1/2021 12:00:00 AM
Raul Gonzalez	D4	S	16579	12/1/2022 12:00:00 AM
William Gulley	D2	S	31062	6/1/2021 12:00:00 AM
Kerek Howe	D2	S	48138	4/1/2023 12:00:00 AM
Blair Knoll	D4	X	34518	8/1/2022 12:00:00 AM
Thomas Marinelli	D2	S	48812	7/1/2020 12:00:00 AM
Omar Martinez	D3	S	44746	8/1/2022 12:00:00 AM
Sean McRory				
Steve McSpadden	D3	S	26056	8/1/2020 12:00:00 AM
Richard Motas	D3	S	32287	12/1/2022 12:00:00 AM
Christina Olson	D4	X	38069	8/1/2021 12:00:00 AM
Luke Oster	D2	S	51503	5/1/2022 12:00:00 AM
Mark Piskor	D3	S	16621	7/1/2022 12:00:00 AM

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Matthew Schassberger	D2	S	44572	11/1/2020 12:00:00 AM
Ryan Spencer	D3	S	42693	8/1/2020 12:00:00 AM
Ryan Stone	D2	S	28018	6/1/2021 12:00:00 AM

[1]Use "C" for Chief Operator and "S" for Shift Operator. If neither, put an "X". Do not leave blank.

Do your Chief and Shift Distribution System Operators have the minimum level required? Yes

COMMENTS (Note: Comments will be made publicly available):

10. WATER SYSTEM IMPROVEMENTS

The California Waterworks Standards (Section 64556) require an amended permit for any of the following improvements or modifications.

- Addition of a new distribution reservoir with a capacity of 100,000 gallons or more
- Modification or extension of the existing distribution system using an alternative to the requirements of the California Waterworks Standards (see Sections 64570 through 64578)
- Modification of the water supply by:
  - Adding a new source
  - Changing the status of an existing source (for example, active to standby) or
  - Changing or altering a source, such that the quality or quantity of water supply could be affected
- Any addition or change in treatment, including
  - Design capacity
  - Process
- Expansion of the existing service area by 20 percent or more of the number of service connections specified in your current permit

If your water system made any improvements or modifications during 2019 for which a permit was not obtained, please describe the improvements or modifications below.

Indicate any planned improvements or modifications for 2020.

COMMENTS (Note: Comments will be made publicly available):

11. COMPLAINTS REPORTED (WRITTEN OR VERBAL)

Type of Complaint	No. of Complaints Reported by Customers	No. of Complaints Investigated	No. of Complaints reported to the Division of Drinking Water or Local County Staff	Brief Description of Cause and Corrective Action taken
Taste and Odor	11	11		Geosmin bloom, change in blend, recommended cleaning drains & flushing lines.
Color	1	1		Sample taken & submitted to lab. Lab contacted customer.
Turbidity				

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Visible Organisms				
Pressure (High or Low)	32	32		Recommended changing fixtures or pressure regulators.
Water Outages[1]	17	17		Off on customer side, non-payment, contractor or vehicle hit lines/hydrants.
Illnesses (Waterborne)				
Other (Specify)				
Total No. of Complaints*	61	61	0	

[1]These are customer complaints of a water outage and not necessarily the same as the water outages reported under "System Problems" in the Distribution Section of the EARDWP.
*Calculated field

To update totals click here

COMMENTS (Note: Comments will be made publicly available): ⓘ

12. RECYCLED WATER USE ⓘ

Does your water system have recycled water in its service area (provided by your water system or another utility)? If no, skip the questions below in this section and move to the next section.	Yes

Important Note Concerning Recycled Water Questions:

The California Water Code Section 10609(c)(4) states: *"The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers."*

It has come to the Division of Drinking Water's attention that there is (at least some) redundant reporting of recycled water information occurring, for at least for some public water systems in this Electronic Annual Report to the Division of Drinking Water. If some or all of the recycled water questions are reported elsewhere, check this box: ☐ . Answer any questions below that are not reported elsewhere and leave the reported quantities blank in the table. Please note in the comments where these quantities were reported.

Name of report(s) containing the information requested in this Electronic Annual Report for reporting year 2019:

Regulatory entity receiving the report(s), contact name, and phone number:

If **only some** of the recycled water questions in this Electronic Annual Report section are reported elsewhere, complete the information above and answer the questions below that are not reported elsewhere. Leave recycled water cells blank ONLY IF it is reported elsewhere on other reports indicated above, otherwise enter zero or the actual figure.

Recycled Water (RW) Use Sites	Total No. of Approved Sites as of Dec. 31, 2019	No. of New Sites Approved in 2019	No. of Sites Proposed for 2020
Irrigation, Agriculture			4
Irrigation, Landscape	77	4	
Industrial			
Dual-plumbed ⓘ (In-building)	3		
Dual-plumbed (Single-family lot)			
Cooling Towers	1		
Other			
Total*	81	4	4

To update totals click here

Name of the recycled water coordinator:	Steve McSpadden

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Business Phone	760-633-2866
Email address	smcspadden@sdwd.org
How many inspections of recycled water use sites were conducted in 2019?	81
How many pressure/shutdown tests were performed in 2019?	8
Do all of your recycled water uses sites have an on-site supervisor?	Yes
How many recycled water uses sites do not have an on-site supervisor?	0

COMMENTS (Note: Comments will be made publicly available):

13. SYSTEM OPERATION - TREATMENT

A. GROUNDWATER TREATMENT *(respond only if groundwater treatment is provided, exclude chlorination treatment)*

Groundwater Treatment Plant Name	Treatment Process	Date of Operations Plan	Is Operations Plan Current? (Y/N)	Contaminant Removed

Describe any plant problems, process failures, major shutdowns, etc., which occurred in 2019 and substantially affected the plant performance AND/OR any significant modifications or maintenance provided to the plant(s):

B. SURFACE WATER TREATMENT *(respond only if surface water treatment is provided)*

Surface water Treatment Plant Name	Date of Operations Plan	Is Operations Plan Current? (Y/N)
R.E. Badger Filtration Plant	2013	Yes

Describe any plant problems, process failures, major shutdowns, etc., which occurred in 2019 and substantially affected the plant performance AND/OR any significant modifications or maintenance provided to the plant(s):

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TD = Treatment or Distribution operator at any level

NR, N/A, NA = There are no facilities subject to the Certified Treatment Plant Operator requirements

Date of current Emergency Disinfection Plan (EDP)*:	4/1/16
**As required under Section 64660(c)(2). The EDP may be included in your water system's Emergency Response Plan or Operations Plan. If so, provide the Name and Date of those plans below:*	
Name of Document that includes the Emergency Disinfection Plan:	Emergency Response Plan
Date of document that includes the Emergency Disinfection Plan:	4/1/16
Date of last watershed sanitary survey report:	11/30/16
Date planned to complete next watershed sanitary survey report*:	11/30/21
**As required under Section 64665, each watershed sanitary survey shall be updated at least every 5 years.*	

COMMENTS (Note: Comments will be made publicly available):

14. SYSTEM OPERATION – DISTRIBUTION

A1. DEAD-END FLUSHING PROGRAM

Total No. in System	No. with Blowoffs	No. Flushed in 2019	Frequency of Flushing
321	321	321	Quarterly/Yearly

Comments on DEAD-END FLUSHING PROGRAM (publicly available):

A2. ALL FLUSHING OPERATIONS

Units of Measure for total volume reported below:	Acre-feet (AF)
Total Volume in units of measure selected above; include all types of flushing, not just dead-end flushing:	6.1

Comments on ALL FLUSHING OPERATIONS (publicly available):

B. VALVE EXERCISE PROGRAM

Size Range of Valves	Total No. in System	No. Exercised in 2019	Frequency of Valve Exercising
2"-36"	3949	1780	2 - 3 years

Comments on VALVE EXERCISE PROGRAM (publicly available):

C. STORAGE TANK/RESERVOIR INSPECTION/CLEANING PROGRAM

(Do not include pressure tanks)

Click here to upload an Excel spreadsheet of your water system's Storage Tank/Reservoir Inspection/Cleaning Program.

Tank name	Capacity (in million gallons, MG)	Year installed	Date of last inspection	Date of last cleaning	Date re-lined or coated	Corrosion protection(*)	Material of construction

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Badger Clearwell	13	1968	2013	2013		N/A-not metal	Concrete
Balour Reservoir	2.5	1975	2018	2017	Re-caulked all joints	N/A-not metal	Concrete
Encinitas Ranch Reservoir	7.5	1998	2020	2006 North 2020 South		N/A-not metal	Concrete
						--Pick One--	
						--Pick One--	
						--Pick One--	

*Coatings and linings do not count as corrosion protection for table Subsection C.

D. SYSTEM PROBLEMS

Type of Problem	No. of Problems	No. of Problems Investigated	No. of Problems Reported to the Division of Drinking Water or Local County Staff	Brief Description of Cause and Corrective Action Taken
Service Connection Breaks/ Leaks	47	47	0	Repairs made to mains and anglestops
Main Breaks/Leaks	4	4	0	Mains repaired
Water Outages	3	3	0	Repairs made
Boil Water Orders	0	0	0	
Total*	54	54	0	

To update totals click here

Comments on SYSTEM PROBLEMS (publicly available):

E. INFRASTRUCTURE AND PRESSURE

Pipe Material in Distribution System

1. Which materials does your distribution system pipe consist of? Please check all that apply:

- ☑ Plastic (Including Poly Vinyl Chloride and HDPE)
- ☑ Steel
- ☐ Cast Iron
- ☐ Galvanized Iron
- ☐ Ductile Iron
- ☑ Cement Concrete
- ☑ Asbestos Cement

Pipeline Material	Percentage of distribution pipe system composed of the materials selected above	Average Age (in years)
Plastic	21.2	32
Steel	10.5	45
Cast Iron	0	
Galvanized Iron	0	
Ductile Iron		
Cement Concrete	.8	45
Asbestos Cement	67.5	48
other: 0	0	

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COMMENTS (Note: Comments will be made publicly available):

15. EMERGENCY PREPAREDNESS & RESPONSE, AND WATER PARTNERSHIPS

A. EMERGENCY RESPONSE PLANS

PUBLIC WATER SYSTEMS WITH AT LEAST 3,300 OR MORE PERSONS SHOULD REVIEW AND REVISE THEIR EMERGENCY RESPONSE PLAN TO ENSURE THAT THE PLANS ARE SUFFICIENT TO ADDRESS POSSIBLE DISASTER SCENARIOS.

Do you have an Emergency Response Plan (ERP) that addresses the procedures for the restoration of water service for your water system?	Yes
Date of your current Emergency Response Plan:	4/1/16
Date ERP was last exercised with a tabletop or other activity:	6/12/15

Are you registered in your local energy utility's Public Safety Power Shutoff notification plan? Yes

B. AUXILIARY POWER SUPPLY

Does your water system have backup power for:	
1. Sources	All
2. Pumping Stations:	All
3. Water Treatment Plants:	All
If your system has backup power, how many times per year is it exercised?	24
Can your system maintain system pressure in all pressure zones either by backup power or by gravity fed storage during power outages for each of the following number of hours?	
24 hours	Yes
48 hours	Yes
72 hours	Yes
Is your backup power system automatic or manual start?:	Automatic

COMMENTS (Note: Comments will be made publicly available):

16. WATER CONSERVATION AND DROUGHT PREPAREDNESS

1. Date of your revised Drought Preparedness Plan or Water Shortage Contingency Plan, if any:	4/15/2015
Water system does not have a current drought or water shortage plan, mark box if applies: ☐	
2. Did your water system experience water shortages in 2019?	No
If yes, please estimate the amount of shortfall in units selected for this section	Volume of water:
	Units of Measure: Acre-feet
3. How many water-shortage response stages are in your drought plan? For "non-applicable", enter zero.	4
4. Did drought conditions cause you to activate emergency standby wells in 2019?	Not Applicable (no wells)
5. Do you project water shortages in the current calendar year?	No
	No

Appendix A - District Electronic Annual Report (EAR)

6. Does your water system anticipate having to go to mandatory restrictions in the upcoming year?	

7. Identify the method your water system uses to discourage excessive water use when in drought, in support of SB 814 (2016) (Check as applicable)

- ☑ 7a. Rate structure (e.g., block tiers, water budgets, or rate surcharges above base rates for excessive water use)
- ☐ 7b. Excessive water use ordinance, rule, or tariff condition
- ☐ 7c. Not implementing
- ☐ 7d. Not applicable: not an urban retail water supplier
- ☐ 7e. COMMENTS REGARDING SB 814 (Note: Comments will be made publicly available) :

8. To identify data streamlining opportunities, are there other government agencies, aside from the Department of Water Resources, that require reports on the same information found in the Electronic Annual Report? If yes, please describe (include the title of the report, which agency receives it, and the type of information it includes):

Only complete the questions below if you are an Urban Retail Water Supplier

Conservation legislation (AB 1668 and SB 606, 2018) requires that the Department of Water Resources recommend standards to calculate water use objectives (targets representing efficient water use) for each urban retail water supplier. The State Water Board will use those recommendations to adopt regulations in July 2022. The questions below help inform this process.

9. What conservation activities occurred in your service area in 2019?

a. Provide a direct link to a web page that summarizes conservation activities in your service area, if available.

b. If a webpage is not available, send an email (click here) with the document, Subject line: PWSID CA_____, Water Conservation Activities

10. Have you tracked how much your water system spent on conservation and efficiency programs in the last fiscal year? Yes

a. If known, enter those expenditures $ 20000

b. If detailed in a document, provide a direct link to a web page with information:

11. Have you tracked how much water was saved as a result of those programs? No

a. If known, enter those savings: b. Units of measure: Not applicable

b. If detailed in a document, provide a direct link to a web page with information:

12. Have you estimated the "saturation" or percentage of water efficient appliances and fixtures already in your service area? No

a. If yes, provide a direct link to a web page with information:

b. Alternatively, if a webpage is not available, send an email (click here) with the document, Subject line: PWSID CA_____, water efficiency of appliances and fixtures

13. Do you currently use imagery to evaluate demand for outdoor use? No Comment:

14. Does your water system have a variance or adjustment process that either 1) allows customers to request a greater volume of water than what would otherwise be budgeted for that customer type or 2) signals customers to reduce water use under particular circumstances? For examples of variances and adjustments, see the drop-down boxes below. No If no, skip this question and go to question 16 below.

a. How many types of adjustments or variances do you provide?

Variance 1	--Pick one--	How is the amount of the variance or adjustment determined? Significance to water demand for the water system?	--Pick one--
Variance 2	--Pick one--	How is the amount of the variance or adjustment determined? Significance to water demand for the water system?	--Pick one--
Variance 3	--Pick one--	How is the amount of the variance or adjustment determined? Significance to water demand for the water system?	--Pick one--
Variance, Other:		How is the amount of the variance or adjustment determined? Significance to water demand for the water system?	--Pick one--

15. Do you intend to use the potable reuse water bonus incentive explained in CWC 10609.20(d))? Maybe

(If you have questions about this please contact State Water Board staff by email at: waterconservation@waterboards.ca.gov. State Water Board staff will follow up with those suppliers who answer "yes". This information is being asked at this time to help staff estimate the impacts of SB 606 and AB 1668, as required for the regulatory process)

16. COMMENTS (Note: Comments will be made publicly available):

Appendix A - District Electronic Annual Report (EAR)

17. CLIMATE CHANGE ADAPTATION AND RESILIENCY FOR WATER UTILITIES

NEW! Per Waterboard Resolution 2017-0012, dated 3/7/17, water system inspections are required to address climate change impacts & concerns.

ONLY FOR COMMUNITY WATER SYSTEMS

Your water system classification is: Community Water System

If you have questions about completing this section of the report, please contact Joseph.Crisologo@waterboards.ca.gov or call (818) 551-2046.

A. CLIMATE THREATS

What climate-related impacts are of concern for your water system (check all that apply)?

☑ Drought ☐ Groundwater Depletion ☐ Water Quality Degradation ☐ Flooding ☐ Sea Level Rise
☐ Extreme Heat ☐ Fire ☐ Other ☐ None or N/A

B. SENSITIVITY AND MAGNITUDE OF IMPACTS

Qualitatively assess climate change sensitivity of your facilities, and criticality or consequence of disruption. Consider identified climate threats using past experience, and expert judgement based on the magnitude of expected change and extreme events in the future. You do not need numeric answers. USEPA provides a risk assessment tool, called CREAT, to help utilities identify which environmental changes can impact water supply: https://www.epa.gov/crwu/build-resilience-your-utility. More resources are available that may help you complete this section.

Drought | Groundwater Depletion	Decreased water storage (low lake and reservoir levels)	Choose an item: Medium Sensitivity
	Groundwater depletion (increased extraction, reduced groundwater recharge, etc.)	Choose an item: None to Low Sensitivity
	Change in seasonal runoff and/or loss of snowmelt	Choose an item: Medium Sensitivity
	Region relies on water diverted from the Delta, imported from the Colorado River, or other climate-sensitive area	Choose an item: High or Already Experiencing
	Salt-water intrusion into aquifers	Choose an item: None to Low Sensitivity
Water Quality Degradation	Altered water quality during storm events (turbidity shifts, debris flows)	Choose an item: None to Low Sensitivity
	Surface water quality issues related to eutrophication, algal blooms, invasive species	Choose an item: High or Already Experiencing
	High flow events and flooding	Choose an item: None to Low Sensitivity
Flooding | Sea Level Rise	Inundation due to sea level rise, high tides, and/or coastal storm surges	Choose an item: None to Low Sensitivity
	Aging flood protection infrastructure (levees), or insufficient impoundment capacity	Choose an item: None to Low Sensitivity
Extreme Heat	Peak demand volume surges (due to extreme heat, temperature trends, etc.)	Choose an item: Medium Sensitivity
	Increases in agricultural water demand or energy sector needs	Choose an item: Medium Sensitivity
Fire | Other Impacts	Increased fire risk and altered vegetation, e.g., wildfires	Choose an item: Medium Sensitivity
	Disruption of power supply	Choose an item: Medium Sensitivity
	Other	Choose an item: --Pick one--

C. ADAPTATION MEASURES

Appendix A - District Electronic Annual Report (EAR)

Identify measures to increase resiliency and reduce vulnerabilities based on identified water system sensitivities. Indicate status for all projects that your organization has completed or plans to implement to increase resiliency of the water system to climate change? Adaptation measures planned or achieved for reasons other than climate change should be put in the "Other" box along with the reason for the measure. USEPA's Adaptation Strategies Guide for Water Utilities provides examples of adaptation: https://www.epa.gov/crwu/learn-how-plan-extreme-weather-events

Install new and deeper drinking water wells, or modify existing wells to increase pumping capacity	Choose an item: N/A
Develop local supplemental water supply, enhanced treatment, or increased storage capacity (e.g. recycled water, storm runoff for groundwater recharge, desalination, new reservoir)	Choose an item: In Progress
Interconnection with other utilities (transfers, mutual aid agreements with neighboring utilities)	Choose an item: Completed
Relocate facilities, construct or install redundant facilities	Choose an item: N/A
Modify facilities (e.g., install barrier or levee, raise a wall, seal a door, elevate construction)	Choose an item: N/A
Conservation measures (demand management, enhanced communication and outreach)	Choose an item: Completed
Fire prevention – brush management, partnerships	Choose an item: Completed
Alternative or backup energy supply	Choose an item: Completed
On-site energy generation	Choose an item: Completed
Enhance monitoring program, budget for additional testing and treatment, chemicals	Choose an item: Completed
Other	Choose an item: --Pick one--

COMMENTS (Note: Comments will be made publicly available):

18. LEAD SERVICE LINE REPLACEMENT

NEW!

ONLY FOR COMMUNITY WATER SYSTEMS

Your water system classification is: Community Water System

Section 116885 of the California Health and Safety Code, Lead Service Lines in Public Water Systems, added to the Health and Safety Code by Senate Bill 1398 (2016) and amended by Senate Bill 427 (2017), requires all community water systems (CWSs) to compile an inventory of known partial or total lead user service lines in use in its distribution system by July 1, 2018. DDW is utilizing the electronic annual report (eAR) to gather and update this information.

CWSs that reported in the table below the existence of lead user service lines (A) or unknown material user service lines (B) or lead/unknown fittings associated with user service lines (M or O), need to submit to a timeline for replacement of those user service lines or fittings to DDW by July 1, 2020. Please include the updated information on your user service line inventory below so DDW can track the progress of your system. If you have identified user service lines in A, B, M or O below, you will need to upload a timeline, including a spreadsheet listing the locations and replacement schedules and a letter or short report contain the justification for the dates of the replacement, for approval by DDW. Please utilize the spreadsheet template located on DDW's lead service line webpage to document the replacement schedules. For the suggested contents of the letter or report, please check the Fact Sheet on DDW's lead service line webpage. Water systems that previously reported service lines of unknown materials, that have now identified those materials and can certify that no lead or unknown service lines exist, must upload a certification form under the LSLR tab in place of a timeline report or letter.

For additional information including the spreadsheet template, certification form and Facts Sheet, please visit

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/lead_service_line_inventory_pws.html

If you have questions about completing this section of the report, please contact David.Pimentel@Waterboards.ca.gov or call (916) 323-0572.

IMPORTANT: In the 2017 and 2018 electronic Annual Reports, all CWSs were required to submit the lead service line inventory to the DDW. The inventory will be prefilled with the 2018 EAR data for this section. Please review the table below and take this opportunity to make changes and update your inventory. Do not leave entry spaces blank. You must enter zero in any yellow fields which are not populated, otherwise errors will be generated at the end of the eAR report.

If your water system is a wholesaler and contains no user service lines, you are not required to complete this form. Please check this box: ☐

Date lead service line inventory was completed (MM/DD/YYYY): 05/30/2018

A. User service line inventory:

"User service line" means the pipe, tubing, and fittings connecting a water main to an individual water meter or service connection.

Pipe Material	Estimated Number of Service Lines (Enter "0" if none)	Estimated Total Length of Service Lines (In feet), if applicable

Appendix A - District Electronic Annual Report (EAR)

A. Lead	0	0
B. Unknown material	0	0
C. Copper	10340	
D. Cast iron (ductile pipe)	0	
E. Ductile iron	0	
F. Galvanized steel	0	
G. Polyvinyl chloride (PVC)	166	
H. Polyethylene (PE)	0	
I. High density polyethylene (HDPE)	1350	
J. Polybutylene (PB)	0	
K. Transite/asbestos cement	0	
L. Other materials not listed above:		
Identify material 1		
Identify material 2		
Identify material 3		
Identify material 4		
Total number of service lines inventoried* (calculated field)	11856	
Total number of service connections from Section 3 of the EAR	11856	
Fittings or fittings connecting a water main:		
M. Lead fittings NOT on a lead pipe(e.g., goosenecks, pigtails, and corporation stops)	0	
N. Lead fittings ON a lead pipe (e.g., goosenecks, pigtails, and corporation stops)	0	
O. Fittings of unknown material (e.g., goosenecks, pigtails, and corporation stops)	0	
Total number of lead service lines** (calculated field)	0	

*Total number of service lines inventoried (calculated field) = Sum of A through L

**Total number of lead service lines (calculated field) = Sum of A and M

To Update calculated field, click button below

To update totals click here

B. Method(s) used to prepare the lead service line inventory in Part A (check all that apply):

☑ Tap Cards or tickets from initial service installation
☑ Plans from water main installation, rehabilitation, and replacement
☑ Records indicating when buildings were constructed
☑ Meter replacement records
☑ Distribution maps, drawings, or GIS
☑ Visual confirmation of pipe material by plumbers or utility crews during maintenance or installation activities
☑ Interviews with water system personnel and/or past employees
☑ Field investigations
☑ Other (describe below):
In my 32 years of experience at SDWD, I have never come accross a lead service. We have renewed services dating back to 1923, they are either copper or plastic.

C. COMPLIANCE WITH LEAD SERVICE LINE REPLACEMENT REQUIREMENT - NEW

Select one of the following options which applies to all community water system:

1. If the CWS completed the requirement by reporting no lead or no unknown service lines or fittings in the **2017, 2018, and 2019** EAR (2017, 2018, and 2019 EAR LSLR inventory table in subsection A. have rows A, B, M and O equal to 0), Check the box below to indicate you have completed the requirement. Click OK in the two pop-up windows that open after the box is checked. No further action is required.

   ☑ No lead and no unknown material service lines or fittings.

2. If the CWS reported lead or unknown material service lines or fittings in the **2017 and/or 2018** EAR identified the materials (2019 EAR LSLR inventory table in subsection A. has rows A, B, M and O (the template can be found at the webpage linked below) then click HERE to upload the completed browser tab will open to the Replacement Timeline LTR or Certification Form upload page, after yo this browser tab to complete the Finalize section of the EAR.

   The LSLR certification form template and FAQs can be found on the Lead Service Line Inven webpage in the Resource and supplemental material section (bottom of page) at:
   https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/lead_service_line_inventory_

3. If the CWS reported lead or unknown material service lines or fittings in the 2019 EAR LSLR sectio Replacement Timeline letter and spreadsheet must be submitted. The completed letter and spreadshe be uploaded at the links provided in 3.a. and 3.b. When you click on the HERE link below in 3.a., a Replacement Timeline LTR upload location, after you have uploaded the document navigate back t a new browser tab to open with the upload page for the Replacement Timeline SS. You will need to section of the EAR after the uploads are completed.

   a. Click HERE to upload the Replacement Timeline LTR
   b. Click HERE to upload the Replacement Timeline SS

   The timeline spreadsheet template and FAQs on this requirement can be found on the Lead S Water Systems webpage in the Resource and supplemental material section (bottom of page) a
   https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/lead_service_line_inve

If you are not able to upload the Replacement Timeline documents before the 2019 EAR is due, submit th date. After the EAR is reviewed, District or LPA Staff will return the EAR for revisions to allow you to up deadline. You can request your District or LPA Office return the EAR for revision if you are ready to uplo

Please indicate the total number of hours spent to complete this report. This information will be utilized to complete this report 25

☑ By checking this box you acknowledge that any information submitted in this report is publicly access determine compliance with applicable laws and regulations. Knowingly submitting false information in th information you certify that the contents are, to the best of your knowledge, complete and correct.

Appendix A - District Electronic Annual Report (EAR)

Appendix B: Regional Alliance Cooperative Agreement

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COOPERATIVE AGREEMENT TO ESTABLISH AND CARRY OUT A REGIONAL ALLIANCE IN ACCORDANCE WITH PART 2.55 OF THE CALIFORNIA WATER CODE

The Olivenhain Municipal Water District ("OMWD"), the Vallecitos Water District ("VWD"), the Rincon del Diablo Municipal Water District ("RDMWD"), and the San Dieguito Water District ("SDWD"), herein referred to individually or collectively as a "Party" or the "Parties," enter into this Cooperative Agreement to Establish and Carry Out a Regional Alliance in Accordance with Part 2.55 of the California Water Code (the "Agreement"), effective April 15, 2011 (the "Effective Date").

RECITALS

A. WHEREAS, Part 2.55 was added to Division 6 of the California Water Code pursuant to SBX7-7, as enacted, under the 2009-2010 Extraordinary Session of the California Legislature (herein referred to as "SBX7-7"); and

B. WHEREAS, SBX7-7 set a goal for, among other things, a 15 percent per capita reduction in urban water use statewide by the year 2015 and a 20 percent per capita reduction in urban water use statewide by the year 2020, and establishes methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the years 2015 and 2020 in accordance with the goal of reducing per capita water use statewide; and

C. WHEREAS, SBX7-7 requires each urban retail water supplier to develop an urban water use target and an interim urban water use target, as defined therein, and authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual or regional basis as provided in Water Code section 10608.28(a); and

D. WHEREAS, SBX7-7 recognizes, among other things, that the factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency; and

E. WHEREAS, the California Department of Water Resources Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan (March 2011) (herein, the "DWR Guidebook") and the California Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (For the Consistent Implementation of the Water Conservation Act of 2009) (October 1, 2010) (herein, the "DWR Methodologies") provide guidance to urban retail water suppliers for purposes of forming and carrying out a Regional Alliance in accordance with Water Code section 10608.28(a) and related provisions of SBX7-7; and

F. WHEREAS, the DWR Guidebook and the DWR Methodologies provide that urban retail water suppliers are eligible to form a Regional Alliance in accordance

with Water Code section 10608.28(a) if the suppliers meet at least one of several specified criteria, such as (1) the suppliers are recipients of water from a common wholesale water supplier, or (2) the suppliers are located within the same hydrologic region, which for this purpose refers to the 10 hydrologic regions as shown in the California Water Plan; and

G. WHEREAS, each of the Parties hereto is an urban retail water supplier and required to develop an urban water use target and an interim urban water use target pursuant to SBX7-7; and

H. WHEREAS, all of the Parties are recipients of water from a common wholesale water supplier, which for this purpose is the San Diego County Water Authority, and all of the Parties are located within the same hydrologic region, which for this purpose is the South Coast Hydrologic Region as shown in the California Water Plan, and all of the Parties share other relevant commonalities; and

I. WHEREAS, the Parties are authorized to establish and carry out a Regional Alliance pursuant to Water Code section 10608.28(a), the DWR Guidebook, and the DWR Methodologies; and

J. WHEREAS, the Parties desire and intend in entering this Agreement to cooperatively establish and carry out a Regional Alliance for the purposes of determining and reporting progress toward achieving their water use targets on a regional basis.

NOW, THEREFORE, the Parties mutually agree as follows:

1. Formation of Regional Alliance. The Parties hereby agree to form a Regional Alliance and agree to send a joint letter to the California Department of Water Resources (hereinafter "DWR") no later than July 1, 2011, informing DWR that the Parties have formed a Regional Alliance. Notwithstanding the formation of a Regional Alliance and the undertaking of activities described in this Agreement, the Parties recognize and agree that each Party will prepare, adopt, and submit its own 2010 Urban Water Management Plan and that each Party is individually responsible for compliance with the requirements of the Urban Water Management Planning Act.

2. Development of Individual Water Use Targets. Each Party agrees to develop its own urban water use target ("Individual Urban Water Use Target") and its own interim urban water use target ("Individual Interim Urban Water Use Target") using Method 1 as set forth in Water Code section 10608.20(b)(1) and as further provided in the DWR Guidebook and the DWR Methodologies. Each Party agrees to develop its Individual Urban Water Use Target and its Individual Interim Urban Water Use Target and make that target information available to each of the other Parties no later than June 1, 2011.

3. Development of Regional Alliance Water Use Targets. The Parties agree that, pursuant to a collective and cooperative effort, and using the Individual Urban Water Use Target and Individual Interim Urban Water Use Target information developed pursuant to Paragraph 2, above, the Parties will develop a regional urban water use target

("Regional Alliance Urban Water Use Target") and a regional interim urban water use target ("Regional Alliance Interim Urban Water Use Target") using Method 1 as set forth in Water Code section 10608.20(b)(1) and as further provided in the DWR Guidebook and the DWR Methodologies. The Parties agree to develop the Regional Alliance Urban Water Use Target and the Regional Alliance Interim Urban Water Use Target no later than June 1, 2011.

4. Reporting in Individual Urban Water Management Plans. The Parties agree that, in addition to other information they will otherwise include in their individual 2010 Urban Water Management Plans, each Party will report the following information in its individual 2010 Urban Water Management Plan: (A) a copy of this Agreement; (B) a copy of the letter to DWR as referenced in Paragraph 1, above; (C) an identification of any other regional alliance to which the Party may be a member; (D) its baseline gross water use and service area population; (E) its Individual Urban Water Use Target and its Individual Interim Urban Water Use Target; (F) its compliance year gross water use and service area population, as applicable; and (G) the Regional Alliance Urban Water Use Target and the Regional Alliance Interim Urban Water Use Target.

5. Regional Alliance Reporting. The Parties agree to jointly prepare and submit a Regional Alliance Report in accordance with Water Code sections 10608.40 and 10608.52 and as further provided in the DWR Guidebook and the DWR Methodologies.

6. Assessing Compliance. The Parties mutually recognize and understand the following statement as set forth in the DWR Methodologies: "The following guidelines will be used to assess compliance: If a regional alliance meets its regional target, all suppliers in the alliance will be deemed compliant. . . . If a regional alliance fails to meet its regional target, water suppliers in the alliance that meet their individual targets will be deemed compliant. Water suppliers in alliances that meet neither their individual targets nor their regional targets will be deemed noncompliant. These suppliers can still apply for grant funds if their application is accompanied by a plan that demonstrates how the funds being sought will bring them into compliance with their targets (Section 10608.56)."

7. Withdrawal or Dissolution. Any Party may withdraw without penalty from the Regional Alliance formed under this Agreement upon sixty (60) days advance written notice to the other Parties. Any such withdrawal shall become effective upon the sixtieth (60th) day after the last non-withdrawing Party receives the notice required by this Paragraph. Any Party that withdraws from the Regional Alliance recognizes and agrees that it is thereafter individually responsible for timely compliance with the urban water use target and interim urban water use target requirements of SBX7-7. In the event that any Party to this Agreement withdraws from the Regional Alliance pursuant to this Paragraph, the non-withdrawing Parties agree to jointly notify DWR of such withdrawal within thirty (30) days of the effective date of the withdrawal. Furthermore, in the event of such a withdrawal, the non-withdrawing Parties may choose to either (A) develop a revised Regional Alliance Urban Water Use Target and a revised Regional Alliance Interim Urban Water Use Target or (B) dissolve the Regional Alliance. In the event the non-withdrawing Parties choose to develop a revised Regional Alliance Urban Water Use

Target and a revised Regional Alliance Interim Urban Water Use Target, the non-withdrawing Parties agree to develop said revised targets in accordance with Paragraph 3, above, within sixty (60) days of the effective date of a withdrawal and to submit such revised information to DWR within thirty (30) days of the completion of the revised information. In the event that (A) upon a Party's withdrawal, the non-withdrawing Parties choose to dissolve the Regional Alliance, or (B) absent a Party's withdrawal, the Parties choose to dissolve the Regional Alliance, the Parties agree to memorialize their decision in writing and to jointly notify DWR of such dissolution within thirty (30) days of the dissolution decision. The Parties further recognize and agree that, in the event of a dissolution of the Regional Alliance under this Paragraph, each Party is thereafter individually responsible for timely compliance with the urban water use target and interim urban water use target requirements of SBX7-7. A dissolution of the Regional Alliance in accordance with this Paragraph shall terminate the Agreement.

8. Notice. Any notice required by this Agreement shall be in writing and shall be made by personal delivery, certified mail, or other form of delivery for which a signature acknowledging receipt is required, and shall be provided as follows:

Olivenhain Municipal Water District
General Manager
1966 Olivenhain Road
Encinitas, CA 92024

Vallecitos Water District
General Manager
201 Vallecitos de Oro
San Marcos, CA 92069

Rincon del Diablo Municipal Water District
General Manager
1920 North Iris Lane
Escondido, CA 92026-1318

San Dieguito Water District
General Manager
160 Calle Magdalena
Encinitas, CA 92024

Any Party may change its contact information for purposes of this Paragraph by providing written notice to each of the other Parties within five (5) working days of said change.

9. Costs. The Parties recognize and agree that each Party shall bear all of its own costs, fees and expenses of whatever nature that may arise out of this Agreement, including, but not limited to, staffing, consulting, legal, and any other costs related to the preparation or implementation of this Agreement.

10. Hold Harmless. Each Party agrees to hold harmless each of the other Parties and its respective public officials, employees, officers, agents, successors and assigns from any and all losses, claims, liens, demands, judgments, and causes of action of every kind and character that may arise under this Agreement. Neither this Paragraph nor any other Paragraph or provision of this Agreement is intended to create any claim or cause of action in favor of any Party or any third party against any of the Parties. The obligations of each Party under this Paragraph shall survive any Party's withdrawal from the Regional Alliance, the dissolution of the Regional Alliance, and any other termination of this Agreement.

11. Term. Except as otherwise provided in Paragraph 6, above, or Paragraph 12, below, this Agreement shall remain in effect until December 31, 2020.

12. Amendments. This Agreement shall not be amended except by written agreement of Parties.

13. Authority and Counterparts. Each Party agrees that its respective signatory below is authorized to sign and enter this Agreement on behalf of the Party. This Agreement may be executed in counterparts.

_____ _____
Name: _____ Date
Olivenhain Municipal Water District

_____ _____
Name: _____ Date
Vallecitos Water District

_____ _____
Name: _____ Date
Rincon del Diablo Municipal Water District

_____ _____
Name: _____ Date
San Dieguito Water District

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Appendix C: District Notification Letters to Cities, Counties, and Other Agencies and Organizations

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SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

City of Encinitas
City Manager
505 South Vulcan Ave
Encinitas, CA 92024

Attn: Pamela Antil, City Manager

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

California state law requires each urban water supplier to prepare and adopt an urban water management plan every five years. In order to be in compliance with state law, SDWD's updated 2020 UWMP must be finalized, adopted, and sent to the California Department of Water Resources (DWR) by July 1, 2021. SDWD is currently in the process of preparing the 2020 UWMP and encourages your input during the development process.

Consistent with Water Code section 10621(b), which requires urban water suppliers updating its UWMP to notify cities and counties within its service area of the update at least sixty (60) days prior to holding a public hearing, this letter serves as SDWD's notice that it is preparing and updating its 2020 UWMP. The 2020 UWMP will be adopted and submitted to the California Department of Water Resources before the July 1, 2021 deadline. SDWD will be adopting its Water Shortage Contingency Plan as part of the 2020 UWMP, as well as considering an Addendum to the 2015 UWMP to demonstrate consistency with Delta Plan Policy to Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit. 23, § 5003).

If you have any input for the updated 2020 UWMP, require additional information, or would like to set up a meeting to discuss SDWD's 2020 UWMP update process, please contact me at 760-633-2793, or by email at bknoll@encinitasca.gov.

Sincerely,

Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

County of San Diego
Director of Planning and Land Use
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Attn: Mark Wardlaw, Director

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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If you have any input for the updated 2020 UWMP, require additional information, or would like to set up a meeting to discuss SDWD's 2020 UWMP update process, please contact me at 760-633-2793, or by email at bknoll@encinitasca.gov.

Sincerely,

Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

Olivenhain Municipal Water District
General Manager
1966 Olivenhain Road
Encinitas, CA 92024

Attn: Kimberly A. Thorner, General Manager

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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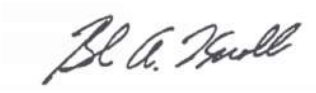

Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

Rincon del Diablo Municipal Water District
General Manager
1920 North Iris Lane
Escondido, CA 92026

Attn: Clint Baze, General Manager

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

San Diego County Water Authority
Water Resources Director
Kelley Gage
4677 Overland Avenue
San Diego, CA 92123

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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Sincerely,

Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

Appendix C - District Notification Letters to Cities, Counties, and Other Agencies and Organizations

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

San Elijo JPA
General Manager
2695 Manchester Avenue
Cardiff, CA 92007

Attn: Michael Thornton, General Manager

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

Appendix C - District Notification Letters to Cities, Counties, and Other Agencies and Organizations

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

Santa Fe Irrigation District
General Manager
5920 Linea del Cielo
P.O. Box 409
Rancho Santa Fe, CA 92024

Attn: Al Lau, General Manager

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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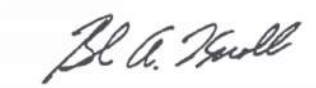

Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA
ENCINITAS, CALIFORNIA 92024-3633

(760) 633-2650
FAX (760) 436-3592

February 18, 2021

Vallecitos Water District
General Manager
201 Vallecitos de Oro
San Marcos, CA 92069

Attn: Glenn Prium, General Manager

Subject: San Dieguito Water District 2020 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a notification to all city and county agencies within San Dieguito Water District's (SDWD's) service area that SDWD's 2020 Urban Water Management Plan (UWMP) is being reviewed and updated.

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Sincerely,

Blair A. Knoll, PE PLS
Senior Civil Engineer
San Dieguito Water District

Appendix D: District Water Loss Audit Worksheets

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Appendix D - District Water Loss Audit Worksheets

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

Click to access definition
Click to add a comment

Water Audit Report for: San Dieguito Water District (3710021)
Reporting Year: 2020 7/2019 - 6/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	7	5,539.500	acre-ft/yr	3			acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 5,539.500 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	9	5,276.720	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	10	7.220	acre-ft/yr			
Unbilled unmetered:	5	69.244	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 5,353.184 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

186.316 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		13.849	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	69.054	acre-ft/yr	1.29%	acre-ft/yr
Systematic data handling errors:	5	13.192	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 96.094 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 90.222 acre-ft/yr

WATER LOSSES: 186.316 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 262.780 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	173.9	miles	
Number of active AND inactive service connections:	9	12,086		
Service connection density:		69	conn./mile main	
Are customer meters typically located at the curbstop or property line?		Yes		
Average length of customer service line:				(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	82.0	psi	

COST DATA

Total annual cost of operating water system:	10	$20,587,462	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.57	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	5	$1,363.06	$/acre-ft	Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 77 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Variable production cost (applied to Real Losses)
3: Unauthorized consumption

Appendix D - District Water Loss Audit Worksheets

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association.

? Click to access definition

+ Click to add a comment

Water Audit Report for: San Dieguito Water District (3710021)

Reporting Year: 2018 7/2017 - 6/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	7	6,295.220	acre-ft/yr	3			acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr

Enter negative % or value for under-registration

Enter positive % or value for over-registration

WATER SUPPLIED: 6,295.220 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:
Billed metered:	9	5,837.740	acre-ft/yr		
Billed unmetered:	n/a	0.000	acre-ft/yr		
Unbilled metered:	10	17.050	acre-ft/yr		
Unbilled unmetered:		78.690	acre-ft/yr	1.25%	acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 5,933.480 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

361.740 acre-ft/yr

Apparent Losses

				Pcnt:	Value:
Unauthorized consumption:		15.738	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	17.028	acre-ft/yr	0.29%	acre-ft/yr
Systematic data handling errors:	9	14.594	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 47.361 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 314.379 acre-ft/yr

WATER LOSSES: 361.740 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 457.480 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	171.4	miles
Number of active AND inactive service connections:	9	11,970	
Service connection density:		70	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	82.0	psi

COST DATA

Total annual cost of operating water system:	10	$18,417,979	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.40	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	5	$1,238.08	$/acre-ft	Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 77 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Variable production cost (applied to Real Losses)

3: Unauthorized consumption

Appendix D - District Water Loss Audit Worksheets

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association.

Click to access definition
Click to add a comment

Water Audit Report for: San Dieguito Water District
Reporting Year: 2017 7/2016 - 6/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	7	5,616.900	acre-ft/yr	3		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr			acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr			acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 5,616.900 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: for help using option buttons

Pcnt: Value:

Billed metered:	9	5,287.000	acre-ft/yr		
Billed unmetered:	n/a	0.000	acre-ft/yr		
Unbilled metered:	10	25.470	acre-ft/yr		
Unbilled unmetered:	5	14.042	acre-ft/yr		14.042 acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 5,326.512 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

290.388 acre-ft/yr

Apparent Losses

Pcnt: Value:

Unauthorized consumption:		14.042	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	4.786	acre-ft/yr	0.09%	acre-ft/yr
Systematic data handling errors:		13.218	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 32.045 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 258.342 acre-ft/yr

WATER LOSSES: 290.388 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 329.900 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	184.4	miles
Number of active AND inactive service connections:	9	11,880	
Service connection density:		64	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	82.0	psi

COST DATA

Total annual cost of operating water system:	10	$17,806,932	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.31	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	5	$1,343.00	$/acre-ft	Use Customer Retail Unit Cost to value real

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 77 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Variable production cost (applied to Real Losses)
3: Unauthorized consumption

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Appendix E: Integrated Regional Water Management (IRWM) Climate Change Vulnerability Analysis

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4 Vulnerability Analysis

Once the Workgroup identified the Region's areas of concern in terms of climate change issues, it was able to begin examining the adaptability of its water resources to climate change by prioritizing the vulnerability issues. In prioritizing the vulnerability issues, the Workgroup identified those water resources that are of highest concern to the Region in terms of the significance of the impact of climate change and therefore the level of adaptation that will be needed.

4.1 Vulnerability Prioritization Process

The vulnerabilities identified were then prioritized during an exercise conducted with the Working group. Each member selected five vulnerability issues they determined should have the highest priority in being addressed. In total, the nine members of the Workgroup resulted in 45 votes. Votes were spread across nearly all of the categories, indicating the Workgroup perceived there to be a wide range of climate change vulnerabilities. The vulnerability issues were then grouped into five priority levels ranging from very high to very low according to the number of votes: very high (nine votes), high (three to four votes), medium (two to three votes), low (one to two votes), very low (no votes).

At a subsequent meeting held on July 26, 2012, the Workgroup reviewed the results and made suggestions for refinements that could be made to better align the prioritization with the vulnerabilities identified in planning documents. These suggestions were incorporated into the prioritized vulnerability issues which are shown in the next section.

4.2 Vulnerability Prioritization Results

The Region's list of prioritized vulnerabilities developed by the Workgroup is shown in Table 4, and discussed further below.

Table 4: Prioritized Climate Change Vulnerability Issues

Priority Level	Category and Vulnerability Issue
Very High	• Water Supply: Decrease in imported supply
High	• Water Supply: Sensitivity due to higher drought potential • Water Quality: Increased constituent concentrations • Flooding: Increases in flash flooding and inundation (extreme weather) • Sea Level Rise: Inundation of storm drains and sewer systems • Ecosystem/Habitat: Decrease in available necessary habitatEcosystem/Habitat: Decrease in ecosystem services
Medium	• Water Demand: Crop demand would increase • Water Demand: Industrial demand would increase • Water Supply: Decrease in groundwater supply • Water Quality: Increase in treatment cost • Sea Level Rise: Damage to coastal recreation / tourism due to inundation
Low	• Water Demand: Limited ability to conserve further • Water Supply: Lack of groundwater storage to buffer drought • Water Quality: Increased eutrophication • Flooding: Increases in inland flooding • Ecosystem/Habitat: Increased impacts to coastal species

Priority Level	Category and Vulnerability Issue
Very Low	• Water Demand: Limited ability to meet summer demand • Water Supply: Invasives can reduce supply available • Water Quality: Decrease in recreational opportunity • Sea Level Rise: Decrease in land • Sea Level Rise: Damage to ecosystem/habitat • Ecosystem/habitat: Decrease in environmental flows • Hydropower: Decrease in hydropower potential

Very High Prioritization

Water supply: Decrease in imported supply

The water supply vulnerability issue of "decrease in imported supply" was identified by the Workgroup as the highest priority issue. The Region is highly dependent on imported water with nearly 80% of its supplies currently coming from the State Water Project and the Colorado River aqueduct. Given the Region's limited local water supplies and the projected 20% to 25% decrease in imported water supply, a decrease in imported supply with climate change could have a significant impact on the Region and is an issue that needs to be addressed.

High Prioritization

Water Supply: Sensitivity due to higher drought potential

Climate change is expected to increase drought potential in the Region. In past years, water suppliers in the Region have successfully implemented drought management measures in order to lower demand. However, there are limits on the effectiveness of drought management measures. For example, tourists visiting the area are not likely to take part in drought management measures. Taking these issues into account, the Region is expected to be more susceptible to drought conditions. As drought is expected to increase in frequency and severity, more direct/long-term measures may be warranted as well as evaluation of revenue impacts to local water districts.

Water Quality: Increased constituent concentrations

The water quality vulnerability issue of increased constituent concentrations with climate change was ranked highly as water bodies in the area already require treatment to meet water quality standards, such as pathogens and nutrients. Climate change is expected to decrease local water resources in the future, which will increase constituent concentrations leading to difficulty in meeting water quality standards and increases to treatment cost.

Flooding: Increases in flash flooding and inundation (extreme weather)

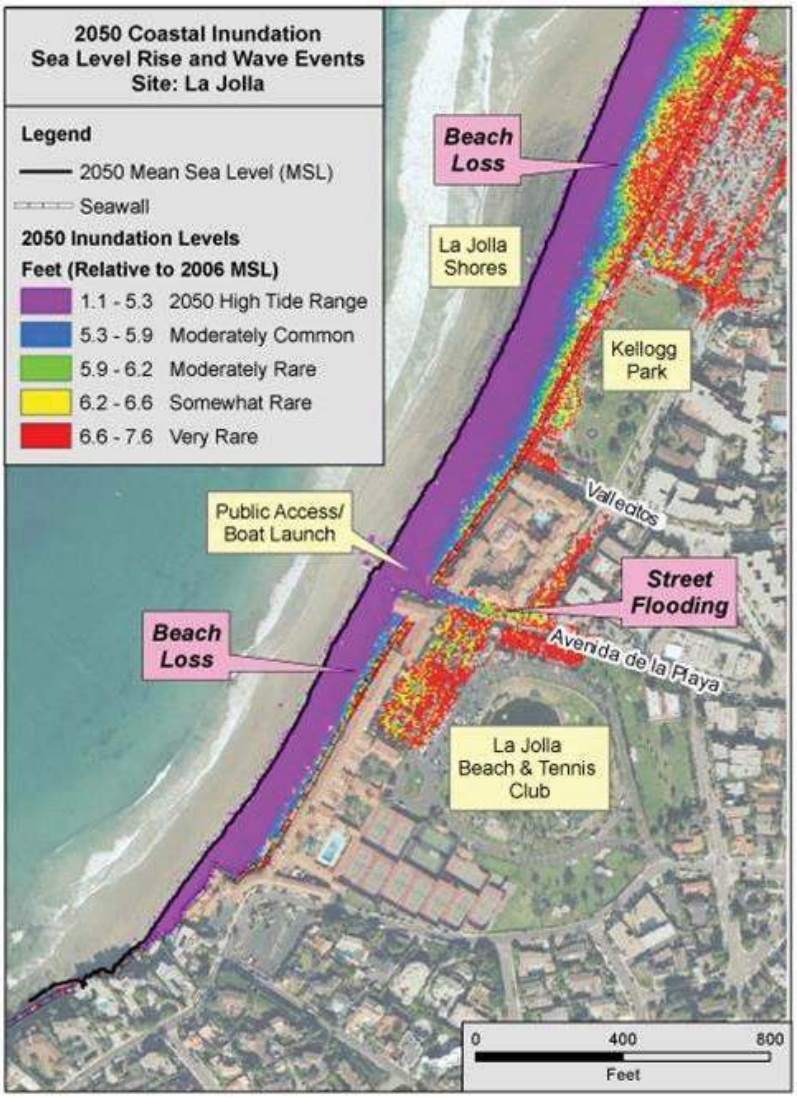
Flash flooding has been an issue for the Region in the past. Foothill areas are especially in danger from flash floods from large seasonal storms, which become a greater concern as the Region is prone to wildfires. Given that more frequent and intense storms are predicted as a consequence of climate change, in addition to increased wildfire risk, increases in flash flooding and inundation are of high concern.

Sea Level Rise: Inundation of storm drains and sewer systems

Regional studies have found that sea level rise is already occurring, and is expected to continue to rise an additional 12 and 18 inches by 2050. This new sea level will inundate a number of low-lying areas along the Region's coast such as Oceanside, La Jolla, Del Mar, Mission Beach, Coronado Island

and Camp Pendleton (Coastal Data Information Program, 2008), and impact their storm drains, wastewater systems, and other facilities and infrastructure. Coastal stormwater infrastructure and wastewater infrastructure that discharge to the ocean will be inundated with increased sea level rise, in particular during coastal storms, causing increased coastal flooding and sewer system overflows. An example of the extent of sea level rise on La Jolla is shown in Figure 2. Concern over aging systems and systems not designed for the increased capacity that will be needed with sea level rise led the group to give this issue a high-priority ranking

Figure 2: Projected 2050 Coastal Inundation with Sea Level Rise in La Jolla



(CDIP, 2008)

Ecosystem/Habitat: Decrease in available necessary habitat

The Region has numerous unique habitat areas extending from the mountains to the oceans which sensitive and endangered species are dependent upon. Anticipated higher temperatures, longer more frequent droughts, and more extreme precipitation events are projected to cause shifts and

loss of habitat necessary for these species. Of particular concern to IRWM planning is the shift and loss of riparian and wetland habitat. Riparian habitat will be altered due to decreased flows, increased water temperatures and increased constituent concentrations. These reductions in habitat and associated loss of sensitive and endangered species will, in turn, create biodiversity shifts and increase invasive species.

Ecosystem/Habitat: Decrease in ecosystem services

Ecosystem services provide important functions, such as material cycling and treatment of stormwater runoff that, if decreased, may result in the need for additional water treatment. As discussed above, climate change is expected to decrease available necessary habitat. This reduction in habitat and associated biodiversity shift and increase in invasive species is expected to decrease ecosystem services in the Region, and could result in additional cost.

Medium Prioritization

Water Demand: Increase in agricultural crop water demand per acre

Crop water demands are expected to increase with the increased temperatures caused by climate change. Though the number of acres of agricultural land is expected to decrease slightly in the future, the net demand for irrigation supply on the remaining acres may exceed current demand under climate change conditions. Through current jurisdictional plans, notably the County of San Diego General Plan, it is apparent that agriculture is an important industry to the Region, particularly smaller agricultural productions and urban farms that provide an economic base and community character to the Region. Given that agricultural land is decreasing, the Workgroup has given this climate change vulnerability issue a medium prioritization.

Water Demand: Increase in industrial demand

Industrial demand is expected to increase with temperature increases due to the need for cooling and process water. This vulnerability issue is particularly of concern for industries such as electronics and aerospace manufacturing, energy generation, research development and the pharmaceutical industry. Industrial demand increases are of concern in particular as increased demand in the Region could impact companies' decision to locate their plants within the Region, which would impact economic development.

Water Supply: Decrease in groundwater supply

Groundwater supply is projected to decline by seven inches per year with climate change. In addition, sea water intrusion caused by rising sea levels also has the potential to impact groundwater supply quality, which will reduce the amount of groundwater available for pumping. Despite these impacts, this vulnerability issue was prioritized as medium since the Region only obtains a small portion of its supplies through groundwater due to the limited size of the groundwater basins. This issue may be of a higher priority in localized areas such as the community of Lakeside, the Marine Corps Base at Camp Pendleton, Pauma Valley, the San Luis Rey River area, and National City where groundwater is a greater portion of supply.

Water Quality: Increase in treatment cost

Total dissolved solids (TDS) levels in reservoirs may increase due to increases in precipitation intensity, particularly after fires, which would in turn increase the cost of water treatment. The Region has a number of reservoirs which are downstream of forested watersheds, and are

susceptible to increased turbidity due to runoff from the surrounding area. However, this is not currently a large issues and therefore, the Workgroup rated this vulnerability issue as medium.

Sea Level Rise: Damage to coastal recreation / tourism due to inundation

As discussed previously, sea level rise is already documented as occurring, and is expected to continue to rise to between 12 and 18 inches by 2050. This rise in sea level is expected to cause damage to coastal recreation and tourism areas (such as beaches), though planning efforts such as the *Sea Level Rise Adaptation Strategy for San Diego Bay*, are ongoing. As the Region's economy relies partially on recreation and tourism, this vulnerability issue has been given a medium prioritization.

Low Prioritization

Water Demand: Limited ability to conserve further

The Region has already succeeded in implementing a large amount of water use efficiency measures. These measures have proven to be successful in mitigating against droughts such as in the severe drought that occurred in 2007. With this in mind, the Region may have difficulty in conserving further to meet greater drought frequency and intensity. However, additional savings measures are available and are being incorporated into Urban Water Management Plans and local climate action plans, which allow the Region to classify this issue as low.

Water Supply: Lack of groundwater storage to buffer drought

As mentioned under the water supply issue of decrease in groundwater supply, the Region's groundwater basins are limited in size, meaning there is very limited storage availability in the groundwater basins for use in buffering drought. Despite this, the Region's low reliability on groundwater makes this issue relatively less of a priority.

Water Quality: Increased eutrophication

Several water bodies in the Region are 303(d) listed for water quality issues related to eutrophication, including a number of lagoons, Tecolote Creek, lower San Diego River, and the Tijuana River Estuary. Consequently, it's probable that temperature increases caused by climate change could increase eutrophication of the Region's water bodies. This climate change vulnerability was ranked low, however, relative to other water quality vulnerability issues.

Flooding: Increases in inland flooding

Inland flooding was listed as a low priority for the Region, though there has been localized flooding in low-lying areas caused by insufficient and/or aging flood infrastructure. More extreme storms due to climate change could cause an increase in inland flooding, but as this is not a Region-wide issue, it has been prioritized as low as the Workgroup felt that this issue could best be addressed through local planning efforts.

Ecosystem/Habitat: Increased impacts to coastal species

Coastal dunes, wetlands, marshes and beaches provide unique habitats for the Region's species. Changes to temperature and precipitation have the potential to impact sensitive species. In addition, brackish lagoons provide estuarine habitat that depends on seasonal freshwater flow patterns. Habitat shifts and loss caused by climate change induced sea level rise, coastal erosion, and changes to freshwater flow patterns could also impact coastal species. Because coastal species

are already protected and because this is a localized issue, the Workgroup decided to classify it as low priority.

Very Low Prioritization

Water Demand: Limited ability to meet summer demand

Increased seasonal temperatures associated with climate change may create a challenge for the Region in meeting summer demands. However, as this is an issue mainly caused by agricultural and urban irrigation, it is ranked low compared to other vulnerability issues.

Water Supply: Invasives can reduce supply available

Invasive species in the Region such as Arundo, Tamarisk and Quagga mussels have the potential to damage water conveyance facilities. Climate change is expected to increase invasive species in the region, which has the potential to impact water supplies in the future. However, this is not currently an issues affecting the Region's water supply infrastructure, and therefore is ranked very low.

Water Quality: Decrease in recreational opportunity

As previously discussed, climate change is expected to increase constituent concentrations in the Region's reservoirs and beaches, a number of which are frequently used for recreation. The Regional already experiences beach closures due to poor stormwater quality which deposits contaminants in near shore areas. A decrease in water quality could impact this beneficial use of these water resources. However, because this is a localized issue, it is ranked very low.

Sea Level Rise: Decrease in land

Coastal erosion is already occurring in the Region along bluffs and cliffs. The continued rise of sea level with climate change is expected to continue to erode land along the Region's coast, and could eventually begin to impact water and wastewater facilities near to the coast, but is a localized issue.

Sea Level Rise: Damage to ecosystem/habitat

As discussed under the vulnerability issue of *increased impacts to coastal species*, sea level rise can be expected to damage coastal ecosystems and habitats. This may occur both through loss of land and through alterations to freshwater flow patterns. Again though, this is a localized issue.

Ecosystem/habitat: Decrease in environmental flows

Aquatic and wetland species often depend upon a minimum flow to survive, and could be impacted with a decrease in minimum flow caused by climate change. In addition, a reduction in flows may increase constituent concentrations in the Region's waters that could stress aquatic life. There are a number of known water quality issues that have the potential to impact species should they worsen in the future, however, there are currently no minimum environmental flows in the Region's rivers and streams,

Hydropower: Decrease in hydropower potential

The Region currently generates 40 megawatts of peak hydropower at the Olivenhain Reservoir and additional hydropower at the Rancho Peñasquitos Pressure Control Hydroelectric Facility, and is examining potential for construction of hydropower facilities elsewhere. Alterations to the Region's hydrology could decrease hydropower generation potential, however, hydropower generation within the Region is not currently a major electricity source.

Appendix F: District SB X7-7 Verification and Compliance Forms

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SB X7-7 Verification Form Version FINAL.1

Table 4-C.4 has been modified from the FINAL version.

WUEdata Entry Exceptions
The data from the tables below will not be entered into WUEdata tables (the tabs for these tables' worksheets are colored **purple**). These tables will be submitted as separate uploads, in Excel, to WUEdata.
Process Water Deduction SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D A supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE data tool, and include them in its UWMP.
Target Method 2 SB X7-7 tables 7-B, 7-C, and 7-D A supplier that selects Target Method 2 will contact DWR (gwen.huff@water.ca.gov) for SB X7-7 tables 7-B, 7-C, and 7-D.
Target Method 4 These tables are only available online at http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm A supplier that selects Target Method 4 will save the tables from the website listed above, complete the tables, submit as a separate upload to WUE data, and include them with its UWMP.

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	7,292	Acre Feet
	2008 total volume of delivered recycled water	600	Acre Feet
	2008 recycled water as a percent of total deliveries	8.23%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1996	
	Year ending baseline period range[3]	2005	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[4]	2008	

[1] *If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.* [2] *The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] *The ending year must be between December 31, 2004 and December 31, 2010.*

[4] *The ending year must be between December 31, 2007 and December 31, 2010.*

NOTES:

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☑	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1996	34,097
Year 2	1997	34,368
Year 3	1998	34,643
Year 4	1999	34,930
Year 5	2000	35,219
Year 6	2001	35,483
Year 7	2002	35,795
Year 8	2003	36,109
Year 9	2004	36,436
Year 10	2005	36,768
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2004	36,436
Year 2	2005	36,768
Year 3	2006	36,660
Year 4	2007	36,552
Year 5	2008	36,441
2015 Compliance Year Population		
2015		37,200
NOTES:		

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 4: Annual Gross Water Use *								
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Deductions**					**Annual Gross Water Use**
			Exported Water	**Change in Dist. System Storage** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1996	7,249			-		-	7,249
Year 2	1997	7,858			-		-	7,858
Year 3	1998	7,334			-		-	7,334
Year 4	1999	7,782			-		-	7,782
Year 5	2000	8,168			-		-	8,168
Year 6	2001	7,535			-		-	7,535
Year 7	2002	7,354			-		-	7,354
Year 8	2003	7,288			-		-	7,288
Year 9	2004	7,179			-		-	7,179
Year 10	2005	6,962			-		-	6,962
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**7,471**
5 Year Baseline - Gross Water Use								
Year 1	2004	7,179			-		-	7,179
Year 2	2005	6,962			-		-	6,962
Year 3	2006	7,281			-		-	7,281
Year 4	2007	7,587			-		-	7,587
Year 5	2008	7,297			-		-	7,297
5 year baseline average gross water use								**7,261**
2015 Compliance Year - Gross Water Use								
2015		6,316	-		-		-	**6,316**
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3								
NOTES:								

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Treated Water From R.E. Badger Filtration Plant
This water source is:	
☑	The supplier's own water source
☑	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1996	7,249		7,249
Year 2	1997	7,858		7,858
Year 3	1998	7,334		7,334
Year 4	1999	7,782		7,782
Year 5	2000	8,168		8,168
Year 6	2001	7,535		7,535
Year 7	2002	7,354		7,354
Year 8	2003	7,288		7,288
Year 9	2004	7,179		7,179
Year 10	2005	6,962		6,962
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2004	7,179		7,179
Year 2	2005	6,962		6,962
Year 3	2006	7,281		7,281
Year 4	2007	7,587		7,587
Year 5	2008	7,297		7,297
2015 Compliance Year - Water into Distribution System				
2015		6,316		6,316

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year *Fm SB X7-7 Table 3*		Surface Reservoir Augmentation					Groundwater Recharge			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1996			-		-			-	-
Year 2	1997			-		-			-	-
Year 3	1998			-		-			-	-
Year 4	1999			-		-			-	-
Year 5	2000			-		-			-	-
Year 6	2001			-		-			-	-
Year 7	2002			-		-			-	-
Year 8	2003			-		-			-	-
Year 9	2004			-		-			-	-
Year 10	2005			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2004			-		-			-	-
Year 2	2005			-		-			-	-
Year 3	2006			-		-			-	-
Year 4	2007			-		-			-	-
Year 5	2008			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
2015				-		-			-	-

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES:

SB X7-7 Table 4-C: Process Water Deduction Eligibility *(For use only by agencies that are deducting process water) Choose Only One*	
	Criteria 1- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
	Criteria 2 - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
	Criteria 3 - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
	Criteria 4 - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility					
Criteria 1 Industrial water use is equal to or greater than 12% of gross water use					
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1996	7,249		0%	NO
Year 2	1997	7,858		0%	NO
Year 3	1998	7,334		0%	NO
Year 4	1999	7,782		0%	NO
Year 5	2000	8,168		0%	NO
Year 6	2001	7,535		0%	NO
Year 7	2002	7,354		0%	NO
Year 8	2003	7,288		0%	NO
Year 9	2004	7,179		0%	NO
Year 10	2005	6,962		0%	NO
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2004	7,179		0%	NO
Year 2	2005	6,962		0%	NO
Year 3	2006	7,281		0%	NO
Year 4	2007	7,587		0%	NO
Year 5	2008	7,297		0%	NO
2015 Compliance Year - Process Water Deduction Eligiblity					
2015		6,316		0%	NO
NOTES:					

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility					
Criteria 2 Industrial water use is equal to or greater than 15 GPCD					
Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1996		34,097	-	NO
Year 2	1997		34,368	-	NO
Year 3	1998		34,643	-	NO
Year 4	1999		34,930	-	NO
Year 5	2000		35,219	-	NO
Year 6	2001		35,483	-	NO
Year 7	2002		35,795	-	NO
Year 8	2003		36,109	-	NO
Year 9	2004		36,436	-	NO
Year 10	2005		36,768	-	NO
Year 11	0		-		NO
Year 12	0		-		NO
Year 13	0		-		NO
Year 14	0		-		NO
Year 15	0		-		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2004		36,436	-	NO
Year 2	2005		36,768	-	NO
Year 3	2006		36,660	-	NO
Year 4	2007		36,552	-	NO
Year 5	2008		36,441	-	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			37,200	-	NO
NOTES:					

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3 Non-industrial use is equal to or less than 120 GPCD							
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1996	7,249		7,249	34,097	190	NO
Year 2	1997	7,858		7,858	34,368	204	NO
Year 3	1998	7,334		7,334	34,643	189	NO
Year 4	1999	7,782		7,782	34,930	199	NO
Year 5	2000	8,168		8,168	35,219	207	NO
Year 6	2001	7,535		7,535	35,483	190	NO
Year 7	2002	7,354		7,354	35,795	183	NO
Year 8	2003	7,288		7,288	36,109	180	NO
Year 9	2004	7,179		7,179	36,436	176	NO
Year 10	2005	6,962		6,962	36,768	169	NO
Year 11	0	-		-	-		NO
Year 12	0	-		-	-		NO
Year 13	0	-		-	-		NO
Year 14	0	-		-	-		NO
Year 15	0	-		-	-		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2004	7,179		7,179	36,436	176	NO
Year 2	2005	6,962		6,962	36,768	169	NO
Year 3	2006	7,281		7,281	36,660	177	NO
Year 4	2007	7,587		7,587	36,552	185	NO
Year 5	2008	7,297		7,297	36,441	179	NO
2015 Compliance Year - Process Water Deduction Eligiblity							
2015		6,316		6,316	37,200	152	NO
NOTES:							

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

1. IRWM DAC Mapping tool
http://www.water.ca.gov/irwm/grants/resources_dac.cfm

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

2. 2010 Median Income

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$60,883		0%	YES

NOTES:

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1996					-
Year 2	1997					-
Year 3	1998					-
Year 4	1999					-
Year 5	2000					-
Year 6	2001					-
Year 7	2002					-
Year 8	2003					-
Year 9	2004					-
Year 10	2005					-
Year 11	0					-
Year 12	0					-
Year 13	0					-
Year 14	0					-
Year 15	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2004					-
Year 2	2005					-
Year 3	2006					-
Year 4	2007					-
Year 5	2008					-
2015 Compliance Year - Process Water Deduction						
2015						-
NOTES:						

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1996	34,097	7,249	190
Year 2	1997	34,368	7,858	204
Year 3	1998	34,643	7,334	189
Year 4	1999	34,930	7,782	199
Year 5	2000	35,219	8,168	207
Year 6	2001	35,483	7,535	190
Year 7	2002	35,795	7,354	183
Year 8	2003	36,109	7,288	180
Year 9	2004	36,436	7,179	176
Year 10	2005	36,768	6,962	169
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**189**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2004	36,436	7,179	176
Year 2	2005	36,768	6,962	169
Year 3	2006	36,660	7,281	177
Year 4	2007	36,552	7,587	185
Year 5	2008	36,441	7,297	179
5 Year Average Baseline GPCD				**177**
2015 Compliance Year GPCD				
2015		37,200	6,316	**152**
NOTES:				

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	189
5 Year Baseline GPCD	177
2015 Compliance Year GPCD	152
NOTES:	

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
189	**151**
NOTES:	

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 7-B: Target Method 2 Target Landscape
Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 7-C: Target Method 2
Target CII Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 7-D: Target Method 2 Summary
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
		North Coast	137	130
		North Lahontan	173	164
		Sacramento River	176	167
		San Francisco Bay	131	124
		San Joaquin River	174	165
		Central Coast	123	117
		Tulare Lake	188	179
		South Lahontan	170	162
		South Coast	149	142
		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
177	168	151	**151**

[1] *Maximum 2020 Target is 95% of the 5 Year Baseline GPCD* [2] *2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.*

NOTES:

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
151	189	**170**
NOTES:		

Appendix F - SB X7-7 Verification Forms

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Extraordinary Events	Weather Normalization	Economic Adjustment				
152	170	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	152	152	**YES**
NOTES:								

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES:

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☐	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☐	**2. Persons-per-Connection Method**
☑	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	37,856
NOTES:	

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 4: 2020 Gross Water Use							
Compliance Year 2020	2020 Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use*	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
	5,463			-		-	**5,463**

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Treated Water from RE Badger Filtration Plant
This water source is *(check one)* **:**	
☑	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	5,463	-	5,463

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 4-B: 2020 Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

2020 Compliance Year	2020 Surface Reservoir Augmentation					2020 Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System
	Volume Discharged from Reservoir for Distribution System Delivery[1]	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss[1]	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility[1,2]	Transmission/ Treatment Losses[1]	Recycled Volume Entering Distribution System from Groundwater Recharge	
			-		-			-	-

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.*

[2] *Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

Appendix F - SB X7-7 Compliance Forms

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility (For use only by agencies that are deducting process water) Choose Only One	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

Appendix F - SB X7-7 Compliance Forms

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.1: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 1)*

Criteria 1
Industrial water use is equal to or greater than 12% of gross water use

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction	2020 Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
	5,463		0%	NO

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.2: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 2)*

Criteria 2
Industrial water use is equal to or greater than 15 GPCD

2020 Compliance Year	2020 Industrial Water Use	2020 Population	2020 Industrial GPCD	**Eligible for Exclusion Y/N**
		37,856	-	NO

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.3: 2020 Process Water Deduction Eligibility *(For use only*
by agencies that are deducting process water using Criteria 3)

Criteria 3
Non-industrial use is equal to or less than 120 GPCD

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	2020 Industrial Water Use	2020 Non-industrial Water Use	2020 Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
	5,463		5,463	37,856	129	NO

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.4: 2020 Process Water Deduction Eligibility ***(For** use only by agencies that are deducting process water using Criteria 4)*

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

1. IRWM DAC Mapping tool https://gis.water.ca.gov/app/dacs/

☐	If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

2. 2020 Median Income

	California Median Household Income*		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
☐	**2020**	**$75,235**		0%	YES

*California median household income 2015 -2019 as reported in US Census Bureau QuickFacts.

NOTES

Appendix F - SB X7-7 Compliance Forms

Data from these tables will not be entered into WUEdata. Instead, the entire tables will be uploaded to WUEdata as a separate upload in Excel format.

This table(s) is only for Suppliers that deduct process water from their 2020 gross water use.

SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer	*Enter Name of Industrial Customer 1*				
Compliance Year 2020	Industrial Customer's Total Water Use *	Total Volume Provided by Supplier*	% of Water Provided by Supplier	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
					-

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water *Fm SB X7-7 Table 4*	**2020 Population** *Fm SB X7-7 Table 3*	**2020 GPCD**
5,463	37,856	**129**
NOTES:		

Appendix F - SB X7-7 Compliance Forms

SB X7-7 Table 9: 2020 Compliance

Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD (Enter "0" if Adjustment Not Used)			TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
	Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]				
129	-	-	-	-	129	151	**YES**

[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

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Appendix G: SB X7-7 Regional Alliance Report

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Appendix G - SB X7-7 Regional Alliance Report

2020 Regional Alliance Report

Olivenhain Regional Alliance

Introduction

The Water Conservation Bill of 2009 (SB X7-7) requires each urban retail water supplier to develop an urban water use target and an interim urban water use target. The legislation authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual agency basis or pursuant to a regional alliance as provided in CWC § 10608.28(a). The DWR Guidebook and the DWR Methodologies provide guidance to urban retail water suppliers for purposes of forming and carrying out a regional alliance in accordance with CWC § 10608.28(a) and related provisions of SB X7-7. The DWR Guidebook and the DWR Methodologies provide that urban retail water suppliers are eligible to form a regional alliance in accordance with CWC § 10608.28(a) if the suppliers meet at least one of several specified criteria, such as (1) the suppliers are recipients of water from a common wholesale water supplier, or (2) the suppliers are located within the same hydrologic region, which for purposes of a regional alliance refers to the 10 hydrologic regions as shown in the California Water Plan.

For the 2010 Urban Water Management Plan, Olivenhain Municipal Water District, along with Vallecitos Water District, San Dieguito Water District, and Rincon del Diablo Municipal Water District formed a regional alliance pursuant to CWC § 10608.28(a), the DWR Guidebook, and the DWR Methodologies to cooperatively determine and report progress toward achieving their water use targets on a regional basis. All of these members are recipients of water from a common wholesale water supplier, in this case San Diego County Water Authority, and all of the members are located within the South Coast Hydrologic Region as shown in the California Water Plan. The alliance members agreed that Olivenhain Municipal Water District would be the lead agency. The agencies are shown in the attached map.

The members have entered a cooperative agreement to establish and carry out a regional alliance and they have jointly notified DWR of the formation of their regional alliance. In accordance with the DWR Guidebook and DWR Methodologies, the members have prepared an urban water use target and an interim urban water use target for the region, which is further set forth herein and within each of the other member's individual UWMPs. Furthermore, each member of the regional alliance has developed its own set of interim and urban water use targets, along with other supporting data and determinations, all of which is included in each member's individual UWMP.

Data Reporting for a Regional Alliance

The attached tables below provide the data required for the Olivenhain Regional Alliance, as described in Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, Final Draft, February 2016. The Olivenhain Regional Alliance did achieve its targeted reduction for 2020, with a target of 204 GPCD, and a 2020 actual use of 150 GPCD.

Appendix G - SB X7-7 Regional Alliance Report

Tables

Table SB X7-7 RA1 – Weighted Baseline				
Participating Member Agency Name	10-15 year Baseline GPCD*	Average Population During 10-15 Year Baseline Period	(Baseline GPCD) X (Population)	Regional Alliance Weighted Average 10-15 Year Baseline GPCD
Olivenhain MWD	352	54,418	19,155,136	
Rincon del Diablo MWD	284	26,434	7,507,256	
San Dieguito WD	189	35,385	6,687,765	
Vallecitos WD	199	70,517	14,032,883	
Regional Alliance Total	1,024	186,754	47,383,040	254
*All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.				
NOTES: MWD = Municipal Water District, WD = Water District				

Table SB X7-7 RA1 – Weighted Target				
Participating Member Agency Name	2020 Target GPCD*	2020 Population	(2020 Target) X (Population)	Regional Alliance Weighted Average 2020 Target
Olivenhain MWD	282	70,522	19,887,204	
Rincon del Diablo MWD	227	27,476	6,237,052	
San Dieguito WD	151	37,200	5,617,200	
Vallecitos WD	159	93,897	14,929,623	
Regional Alliance Total	819	229,095	46,671,079	204
*All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.				
NOTES: MWD = Municipal Water District, WD = Water District				

Appendix G - SB X7-7 Regional Alliance Report

Table SB X7-7 Regional Alliance – 2020 GPCD (Actual)				
Participating Member Agency Name	2020 Actual GPCD*	2020 Population	(2020 GPCD) X (2020 Population)	Regional Alliance 2020 GPCD (Actual)
Olivenhain MWD	206	72,179	14,868,874	
Rincon del Diablo MWD	135	32,019	4,322,565	
San Dieguito WD	129	37,856	4,883,424	
Vallecitos WD	125	105,741	13,217,625	
Regional Alliance Total	595	247,795	37,292,488	150
*All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.				
NOTES: MWD = Municipal Water District, WD = Water District				

Table SB X7-7 Regional Alliance – 2020 Compliance				
2020 Actual GPCD	Optional Adjustment for Economic Growth[1]	Adjusted 2020 Actual GPCD	2020 Target GPCD[2]	Did Regional Alliance Achieve Targeted Reduction for 2020?
150	0	150	204	YES
1 Adjustments for economic growth can be applied to either the individual supplier's data or to the aggregate regional alliance data (but not both), depending upon availability of suitable data and methods. 2 GPCD will be taken from the Regional Alliance's SB X7-7 Verification Form, Weighted Target Table.				
NOTES: MWD = Municipal Water District, WD = Water District				

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Appendix H: Lake Hodges Water Agreement

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April 10, 2014

AMENDMENT TO AND RESTATEMENT OF MARCH 17, 1998 AGREEMENT BETWEEN THE CITY OF SAN DIEGO, SANTA FE IRRIGATION DISTRICT AND SAN DIEGUITO WATER DISTRICT REGARDING LAKE HODGES

This AMENDMENT to and RESTATEMENT ("Amendment") of the March 17, 1998 Agreement (City of San Diego Document No. 00-18474) ("1998 Agreement") by and between the City of San Diego ("San Diego" or "City"), a municipal corporation, Santa Fe Irrigation District ("Santa Fe"), a California irrigation district, and San Dieguito Water District ("San Dieguito"), a California irrigation district, is made and entered this 1st day of November, 2014. Santa Fe and San Dieguito are referred to herein collectively as the "Districts." The City, Santa Fe and San Dieguito are referred to herein collectively as the "Parties."

RECITALS

A. The City acquired its ownership interest in Lake Hodges ("Lake Hodges" or "Lake Hodges Reservoir"), a reservoir with a capacity of approximately 30,000 acre feet, located near Rancho Santa Fe, California, subject to the Districts' entitlement to a portion of the water flowing into Lake Hodges.

B. Subsequent to the City's acquisition of Lake Hodges, the Parties entered into a series of written agreements which addressed the quantity of "Local Water" available to the Districts, allocation of costs between the City and Districts associated with certain aspects of operations at Lake Hodges, delivery points for Local Water to be diverted by the Districts, and other matters.

C. The Parties have expressed support for the efforts of the San Diego County Water Authority ("CWA") to establish a regional emergency storage project ("ESP").

D. On March 17, 1998, the Parties entered into the 1998 Agreement. By its own terms, the 1998 Agreement was intended to rescind all previous agreements between the Parties and restate their respective rights with respect to Lake Hodges.

E. On April 9, 1998, the CWA Board of Directors approved the authorization for the CWA General Manager to enter into an agreement with the City for the ESP expansion of Lake Hodges Dam and Reservoir.

F. By agreement dated May 26, 1998 as City Document Number 00-18521-2 ("City-CWA Agreement"), the City entered into an agreement with CWA that relates to the ESP and associated improvements to be undertaken at various City reservoirs. In particular, the City-CWA Agreement and ESP contemplated the construction of a pipeline and pumping plant to connect Lake Hodges to Olivenhain Reservoir and CWA's "Second Aqueduct." The City-CWA Agreement expressly acknowledges the 1998 Agreement.

G. In 2008, the Parties had a disagreement on the interpretation of the 1998

Agreement in relationship with the City-CWA Agreement. The Districts subsequently filed suit against the City alleging, among other claims that the City-CWA Agreement infringed upon the Districts' rights and interests in Lake Hodges and its water supplies. In particular, the Districts claimed that the City's agreement to convey to CWA the ownership of 20,000 acre feet of storage rights in Lake Hodges violated the 1998 Agreement. The City denied each of those claims. On or about November 18, 2010, the Districts and the City entered into a "Joint Stipulation to Dismiss Case Without Prejudice and Toll All Applicable Statutes of Limitations" as well as a "Tolling Agreement for the Lake Hodges Litigation Between Santa Fe Irrigation District, San Dieguito Water District, and the City of San Diego." On or about the same date, the Districts' lawsuit against the City was dismissed without prejudice.

H. The purpose of this Amendment is to amend and restate the Parties' respective rights with respect to Lake Hodges in light of circumstances existing as of the date of this Amendment and to resolve the claims brought in the Districts' lawsuit.

AGREEMENT

NOW, THEREFORE, in consideration of the recitals and the terms and conditions set forth below and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City, San Dieguito and Santa Fe agree as follows:

1. DEFINITIONS

Unless otherwise defined herein, the following words shall have the meanings indicated:

A. **"Commencement"** or the **"Commencement Date"** of Lake Hodges Project operations shall have the meaning set forth in Section 3, below.

B. **"Dead Storage"** means that water located in the portion of the total storage capacity of the Lake Hodges Reservoir which is located lower in elevation than the lowest usable outlet of the Lake Hodges Dam outlet works or which cannot otherwise be accessed and utilized for water supply purposes. Dead Storage volumes are included in each Party's storage capacity right. Only volumes above Dead Storage amounts are available for use by each Party. Such Dead Storage shall be allocated per terms of Section 6.A.5, below.

C. **"Emergency Storage Project" or "ESP"** means CWA's Emergency Storage Project, including but not limited to, the San Vicente Dam Raise Project, the Lake Hodges Project, and the Olivenhain Project, as described in CWA's Environmental Impact Report and in the Environmental Impact Statement of the US Army Corps of Engineers file no. 95-20092-DZ, and in Technical Memorandum 17, Phase II Report, prepared for CWA by GEI Consultants, Inc.

D. **"Imported Water"** means water originating outside of the Lake Hodges watershed that is transported through CWA Aqueducts but excludes any water credited by CWA as Local Water.

E. **"Interim Period"** means the time period between the Commencement Date and the San Vicente Dam Raise Completion Date.

F. **"Lake Hodges Project"** means the construction/installation of: (1) a pipeline between Lake Hodges and Olivenhain Reservoir; (2) a new intake structure at Lake Hodges for such pipeline; (3) a pumping plant ("Pumping Plant") at or near Lake Hodges; and (4) related appurtenances and mitigation.

G. **"Local Water"** means all water flowing into Lake Hodges from the Lake Hodges watershed except as otherwise noted in this definition. Local Water shall also include all water credited by CWA as Local Water under the City-CWA Agreement or otherwise. Local Water does not include water which spills over Lake Hodges Dam, water withdrawn from Lake Hodges during Spill Events, and Imported Water.

H. **"Operations and Maintenance Costs" or "O&M Costs"** shall mean the costs of operation, maintenance and administration of Lake Hodges, as described in Section 10(A), below.

I. **"San Vicente Dam Raise Completion Date"** means the date when the ongoing project to raise the height of the dam at San Vicente Reservoir northeast of Lakeside, California is completed, which will occur when the Notice of Completion is approved by CWA's Board of Directors.

J. **"Spill Events"** shall refer to those times when water is spilling over Lake Hodges Dam.

K. **"Water Year"** means the period from October 1 of any given year through September 30 of the following year.

2. PROPERTY RIGHT

The Districts' right to Local Water is a property right acquired by the Districts for valuable consideration.

3. COMMENCEMENT DATE / EFFECTIVE DATE

The Parties agree that the terms of this Amendment, including the rights, duties and obligations herein, shall become effective when this Amendment is fully approved and executed by all Parties ("Effective Date"). However, the Parties have been operating under the rights, duties and obligations set forth in Paragraphs 4, 5, and 8 below, since the date that the operations of the Lake Hodges Project began, which is March 15, 2012 (the "Commencement Date").

4. RIGHTS TO LOCAL WATER

The Parties agree as follows:

A. **Equal Sharing of all Local Water.** Beginning on the Commencement Date, the City shall be entitled to 50% of all Local Water upon inflow, and the Districts, together, shall be entitled to the other 50% of Local Water upon inflow. Subject to the provision of Section 7 below, regarding Spill Events, this 50/50 sharing of Local Water inflow shall be binding regardless of the volume of Local Water being stored in Lake Hodges by either Party at the time of such Local Water inflow.

B. **No Other Diverters of Local Water.** The Parties agree that no entity other than the Districts and the City shall have the right to capture or divert Local Water or water diverted during Spill Events from Lake Hodges, except as may be agreed to in writing by the Parties. The Parties shall work cooperatively to carry out the intent of this provision, as necessary to protect their common interests.

C. **Initial Allocation of Lake Hodges Water upon Commencement.** The City and Districts shall equally share the entire volume of water in Lake Hodges, 50% to City and 50% to Districts, as of the Commencement Date (i.e., March 15, 2012), which volume has been calculated by the City as 24,653.30 acre feet.

5. RESERVOIR OPERATIONS

A. **Overall Intent of Lake Hodges Project Operations after Commencement.**

1. **Goals of the Parties.** The Parties acknowledge that the City, the Districts and CWA will each be involved in the operations of Lake Hodges going forward. The Parties acknowledge the benefits of the joint use and cooperative use of storage in Lake Hodges to maximize Local Water yield and to meet the operational needs of all Parties. The Parties acknowledge that the Districts have a goal of ensuring the reliability of the Districts' Local Water supplies, particularly in times of drought. The Parties also acknowledge that among CWA's primary objectives are ensuring that sufficient water supplies are available in Lake Hodges and across San Diego County to serve CWA's member agencies during an emergency, and providing for sufficient water storage in Lake Hodges to allow for "pumped storage" operations.

2. **Maximization of Local Water.** The Parties acknowledge and agree that Lake Hodges shall be operated to maximize the inflow, collection and yield of Local Water.

B. **Annual Operations.**

1. **Reservoir Operations and Cooperation.** The Parties acknowledge and agree that the City, in cooperation with CWA, shall be the sole operator of Lake Hodges; provided, however, that there shall be close coordination with the Districts regarding Lake Hodges operations that impact the Districts' interests or water supplies.

2. **Reservoir Regulating Manual.** The Parties acknowledge that CWA, in cooperation with the City, has prepared a Lake Hodges Reservoir Regulating Manual (April 2008) ("RRM"). The RRM is intended to guide the operations of Lake Hodges. In addition, the RRM contemplates that an annual operating plan ("AOP") will be prepared by the City and CWA each spring/summer to provide more detail regarding anticipated Lake Hodges operations for the following Water Year. The AOP present "Guide Curves" that serve as a foundation for operating Lake Hodges. The Parties agree to conduct operations of Lake Hodges in substantial compliance with the Guide Curves or any updates to such Guide Curves that are either approved by the Parties or result from unforeseen natural events such as excessive rain.

3. **Annual Operating Plan Preparation.** The City will allow the Districts to participate each year in the full development of the annual operation plans described above as well as in any related operations and maintenance or similar budgeting process. As part of their participation in the AOP process, the Districts will provide the City with their anticipated annual storage plan and Local Water needs for the following Water Year by June 1 of each year.

4. **Annual Operating Plan Designations.** The City will assure that, after Commencement, all AOPs and any amended versions of the RRM will separately name the Districts, acknowledge their operations, recognize the Districts' storage rights and rights to Local Water in Lake Hodges as separate from the City, and expressly and separately track the volumes of Local Water held and controlled by the Districts.

6. DISTRICTS' STORAGE OF WATER

A. **Reservoir Storage Allocation.** Beginning on the San Vicente Dam Raise Completion Date, the Districts shall have the right to store the Districts' share of Local Water in Lake Hodges as described in this Section 6.

1. **Reservoir Storage Pools.** To secure the Districts' right to store Local Water in Lake Hodges, the City shall, in good faith, undertake all actions necessary with CWA, if any, to accomplish such storage rights. If the City is required to enter into any agreements to accomplish this task, such as a storage agreement between the City and CWA, such agreements shall be acceptable

in substance and form to the Districts before they are executed.

2. **Districts' Exclusive Storage Pool Amount**. The Districts shall have storage rights of 5,000 acre feet to store Local Water in Lake Hodges. The Districts' 5,000 acre-foot "District Storage Pool," includes the Districts' allocated Dead Storage, and may be used, in the sole discretion of the Districts, for holding operating storage, carryover storage, or other type of commonly recognized water storage. Water stored in the Districts' Storage Pool shall not be subject to spill.

3. **City's Exclusive Storage Pool Amount**. The City shall have storage rights of 5,000 acre feet to store water in Lake Hodges. The City's 5,000 acre-foot "City Storage Pool," includes the City's allocated Dead Storage, and may be used, in the sole discretion of the City, for holding operating storage, carryover storage, or other type of commonly recognized water storage. Water stored in the City's Storage Pool shall not be subject to spill.

4. **District and City Water in Lake Hodges Above Storage Pool Amounts.** Should the Districts or City have water in Lake Hodges that exceeds its Storage Pool volume and is not otherwise protected from spilling, such water shall be subject to spill. Should the Parties determine that such water must be removed from Lake Hodges or transferred in order to ensure that Lake Hodges Guide Curves are generally observed or for other material operational reasons, the Parties shall develop and jointly agree upon a withdrawal plan to remove or transfer all or a portion of such water within a reasonable time.

5. **Dead Storage Allocation.** Pursuant to the City-CWA Agreement, CWA bears two-thirds (2/3) of all losses from dead storage resulting from the ESP intake structure, currently 5,989 acre feet. Based on this, CWA's current dead storage share is 3,992.7 acre feet. The dead storage resulting from the Hodges Dam existing outlet works is 1,830 acre feet. The Districts bear one-sixth (1/6) of such losses or currently 305 acre feet. The City bears the remaining losses, currently 1,691.3 (5,989 minus 3,992 minus 305).Any future changes to Dead Storage amounts will be allocated using the proportions and summations as stated above.

B. **No Third Party Storage in Lake Hodges.** No entity other than the Districts and the City shall have the right to store water in the Districts' or City's storage capacity in Lake Hodges, except with the express written permission of the City and the Districts.

C. **No Districts' Right to Store Imported Water.** The Districts shall not have the right to store Imported Water in Lake Hodges.

7. SPILL EVENTS

The purpose of this Section 7 is to delineate the rights of the Parties during Spill Events.

A. **Spill Events.** During Spill Events occurring after the San Vicente Dam Raise Completion Date, water that is subject to spill per Section 6(A) shall spill in proportion to the Districts' and City's respective storage amounts in Lake Hodges at the time the Spill Event begins, except that the 5,000 acre-foot guaranteed non-spill storage benefitting both the Districts and City shall not be counted in making such proportional calculation of spill. Such proportional spill shall be applied until the spill-able amounts have completely spilled or the Spill Event ends.

B. **Diversion or Sale of Water During Spill Events**. If both Parties decide to divert water out of Lake Hodges during a Spill Event, they shall share access to the City-owned and CWA-owned Lake Hodges Project facilities (i.e., the "City Component" and the "Authority Components" defined in the City-CWA Agreement). The Districts shall be entitled to 50% of the available capacity (available capacity can be impacted by hydraulic, water quality and operational constraints) of the Lake Hodges Projects facilities, less 50% of the total volume of water diverted by the Districts through the City-owned Hodges Dam Outlet. For example, if the available capacity of the Lake Hodges Project facilities is 168 cubic feet per second (cfs) and the Districts are diverting 10 cfs through the Hodges Dam Outlet, then the Districts shall have access to 79 cfs through the Lake Hodges Project ((168 cfs x .5) – (10 cfs x .5) = 79 cfs). Therefore, under the example, the City and Districts would each have the ability to withdraw a total of 89 cfs out of Lake Hodges during a Spill Event. Any Party's use of the CWA-owned Lake Hodges Project facilities shall be subject to any CWA terms and conditions associated with the use of such facilities.

Any water sold, either directly or through a paper transfer, to CWA shall be equally shared during a Spill Event, unless one Party decides not to participate in such sale or water transfer.

If a Party decides to not divert water out of Lake Hodges during a Spill Event, then the other Party can divert as much water as desired at no cost or compensation to the first Party until the Spill Event terminates.

8. INTERIM PERIOD OPERATIONS.

A. **Storage During the Interim Period.** During the Interim Period, the Parties shall have equal access to the remaining 20,000 acre foot future CWA storage capacity. The Parties will operate such storage per the AOP Guide Curves and Sections 6 and 7.

9. GENERAL PRINCIPLES REGARDING O&M AND CAPITAL IMPROVEMENT COST.

Following are several "General Principles" related to

Lake Hodges Operation and Maintenance Costs and capital improvement cost allocations:

A. Beyond the costs the Districts currently pay as a member of CWA, the Districts shall not be required to bear any costs associated with construction, maintenance, operation, repair or rehabilitation of the ESP (e.g., the Lake Hodges Project component of the ESP), including any costs associated with ongoing or recurring permit conditions or environmental mitigation requirements for the ESP.

B. The Districts shall not be required to pay more than their fair share of that portion of Lake Hodges Operation and Maintenance Costs and capital improvement costs to be paid by the City and the Districts. That is, the Districts shall be entitled to fully and fairly benefit from any and all operations and maintenance and capital improvement costs related to Lake Hodges to be paid by CWA, by third parties, or with grant (e.g., Proposition 84) funds.

C. The Districts will be permitted and invited to participate in any annual Lake Hodges operations and maintenance budgeting processes undertaken between the City and CWA, including in any meetings related to O&M costs in excess of the annual budget established by CWA and the City. The Districts shall be invited to participate in any meetings or processes related to Lake Hodges operations that involve regulatory, operations and maintenance, capital improvement or other costs the Districts may be asked to bear.

D. The Districts will not pay any recreational costs associated with Lake Hodges, including but not limited to management, capital improvement, operation, or maintenance costs for City recreation activities and facilities. The Districts will also not pay any operations, maintenance, capital improvement or other costs associated with pump storage operations.

E. The City shall keep books, records, documents, and other evidence pertaining to actual Operating and Maintenance Costs, and capital improvement costs incurred and revenues, excluding recreation-related revenues, received from Lake Hodges Reservoir to the extent and in such detail as necessary to reflect all such costs and revenues. The City shall maintain such books, records, documents and other evidence pertaining to Lake Hodges O&M Costs and capital improvement costs for a minimum of four years after completion of the last entry or four years after resolution of all relevant disputes arising therefrom, whichever is longer, and shall make available at the City's offices at reasonable times such books, records, documents and other evidence for inspection and audit by the Districts.

10. LAKE HODGES OPERATION AND MAINTENANCE COST ALLOCATION

A. **O&M Costs.** Operations and Maintenance Costs shall include:

(1) personnel costs of employees, such as dam tenders, reservoir keepers and other employees assigned by the City whose duties relate directly to the operation and maintenance of Lake Hodges Reservoir, for that portion of their time that is directly or entirely associated with the ongoing operation, maintenance and administration of the Lake Hodges Reservoir, Dam and outlet works and new intake structure at Lake Hodges for the pipeline between Lake Hodges and Olivenhain Reservoir;

(2) the cost of repainting, resurfacing, patching, dredging, periodic surveys, including but not limited to watershed surveys, and inspections of Lake Hodges Reservoir, Dam and outlet works and new intake structure at Lake Hodges for the pipeline between Lake Hodges and Olivenhain Reservoir;

(3) the costs of engineering studies and fees necessary to maintain the State of California licenses or permits for the Lake Hodges Reservoir, Dam and outlet works and new intake structure at Lake Hodges for the pipeline between Lake Hodges and Olivenhain Reservoir;

(4) the cost of servicing machinery, equipment, and vehicles belonging to and operated by the City for that portion of the time they are utilized directly or principally in the operation, maintenance and administration of the Lake Hodges Reservoir, Dam and outlet works and new intake structure at Lake Hodges for the pipeline between Lake Hodges and Olivenhain Reservoir;

(5) the cost of maintaining and irrigating landscape associated with the Lake Hodges Reservoir;

(6) the cost of utility services such as power, heating, water, sewage, and garbage disposal which are directly related to the operation and maintenance of Lake Hodges Reservoir, Dam and outlet works and new intake structure at Lake Hodges for the pipeline between Lake Hodges and Olivenhain Reservoir;

(7) any other costs and expenses reasonably incurred for the operation and maintenance of the Lake Hodges Reservoir, Dam and outlet works and new intake structure at Lake Hodges for the pipeline between Lake Hodges and Olivenhain Reservoir, so long as such further costs are not excepted from District payment or contribution to such costs by other provisions of this Amendment; and

(8) such other operations and maintenance activities as the Parties may mutually agree and incorporate into the O&M budget for the Fiscal

Year in which such activities are performed.

B. **Allocation of O&M Costs.** The Parties agree to the following allocation of O&M Costs.

(1) From July 1, 2012 until the San Vicente Dam Raise Completion Date, the Parties agree to share O&M Costs equally (50% to the Districts and 50% to the City), provided that any operations and maintenance payments related to Lake Hodges made by CWA or any other entity to the City over that period shall be applied to reduce O&M Costs before the 50/50 cost allocation between the Parties is calculated. O&M Costs during this period shall be reconciled within 90 days of the San Vicente Dam Raise Completion Date. Such reconciliation shall take into consideration the O&M costs already paid by Districts to City during this period. Any resulting refund to Districts or amount due from Districts shall be paid within 60 days following reconciliation.

(2) The Parties agree that after the San Vicente Dam Raise Completion Date, the Districts shall pay 25% of the O&M Costs, the City shall pay 25% of the O&M Costs, and CWA shall pay 50%, pursuant to the City-CWA Agreement of the O&M Costs, provided that any operations and maintenance payments related to Lake Hodges made by any other entity to the City over that period shall be applied to reduce O&M Costs before the cost allocation between the Parties is calculated.

C. **O&M Budgeting.** City and District representatives shall annually develop and prepare a proposed O&M budget for each Fiscal Year after the Effective Date. Such O&M budget shall be submitted to the governing bodies, if applicable, of each of the Parties in sufficient time to permit each Party to budget and appropriate its share of the funds required for such budget. If, for any reason, such as the need for emergency repairs, the actual O&M Costs exceed or are expected to exceed the approved City-Districts O&M budget, City and Districts representatives shall meet and mutually agree to a revised budget and payment schedule for submissions to the applicable governing bodies of each Party, if applicable, in order to obtain a revised appropriation of funds necessary to pay O&M Costs for the remainder of such Fiscal Year. The City, as operator of Lake Hodges, shall be responsible to notify the Districts of the projected need for increased funds to pay for O&M Costs within 30 days of the discovery of the need for such funds. The City shall not be expected or required to, nor shall it, delay the implementation of emergency repairs necessary to ensure the structural integrity or safety of Lake Hodges Dam or appurtenant facilities because of the notification and budgeting requirements of this Amendment. Lack of notification does not release the Districts of the requirements to pay for such revised O&M Costs. All O&M Costs shall be paid to the City within 90 days of the end

of the Fiscal Year it was expensed.

D. **Monthly and Annual Billing Dispute Resolution Procedure.** Subject to the reasonable right to dispute the amount of any bills as set forth in Section 20, below, the Districts agree to pay such bills. Within 150 days after the end of each Fiscal Year, the City will reconcile the estimated monthly billing with the actual costs. The Districts shall make payments to the City of the Districts share of the O&M Costs in advance on or before the first of every month in each Fiscal Year calculated based on the Districts' annual share of such expenses as reflected in the approved annual budget for O&M Costs divided by twelve. If the actual O&M Costs are less than the approved budget for any Fiscal Year then the excess actually paid by the Districts to the City shall be reimbursed back to the Districts.

11. CAPITAL COSTS

A. **Allocation of Capital Improvement Costs Between the City and Districts.** Subject to the provisions of this Amendment and this Section 11 (and Section 11(B) in particular), the City and Districts agree to the following allocation of costs for future capital improvements at Lake Hodges.

(1) The Districts shall bear no responsibility to contribute to or otherwise pay for any capital costs associated with the ESP facilities or improvements (e.g., repair and rehabilitation of the Pumping Plant), or with any recreation capital improvements at Lake Hodges.

(2) The Districts agree to pay 25% of the capital costs associated with capital improvement projects related to pre-ESP Lake Hodges facilities or projects such as the repair, replacement or rehabilitation of Lake Hodges Dam and outlet works.

(3) In view of the Districts' significant capital investment in its own water treatment facilities, the Districts shall bear no responsibility to contribute to or otherwise pay for water quality related capital improvement projects at Lake Hodges.

B. **Capital Cost Budgeting and Approval**

1. **Approval Process.** Subject to the commitments set forth in Section 11(A), any future capital improvement project at Lake Hodges Reservoir which affects the rights or interests of any Party or all Parties to this Amendment and which is over and above those future projects necessary for the maintenance, repair, or replacement of components of the Lake Hodges Reservoir, dam and outlet works shall require a new agreement with all Parties; provided, however, that no Party shall unreasonably withhold its

consent.

2. **Capital Improvement Project Meetings.** For future capital improvement projects where it is reasonably expected that the Districts will be asked to pay a portion of the costs of such capital improvement project, the Districts shall be timely invited to the initial project design meeting and to official design review meetings at the 30%, 60% and 90% design phase milestones.

3. **Third Party Funding of Future Capital Improvement Projects.** Any payment or promise of payment by any third party towards any capital improvement project at Lake Hodges to which the Districts are also being asked to contribute shall be counted when the City calculates the capital cost for such project to be paid by the Districts. In addition, any grant funding secured by any Party to be used to fund capital improvement projects at Lake Hodges shall be counted when the City calculates the capital cost for such project to be paid by the Districts.

4. **Monthly and Annual Billing.** The City shall annually, by June 1 of each year, estimate the capital improvement costs for the following Fiscal Year. The City shall charge and invoice the Districts their portion of the actual capital improvement costs as they are incurred on a monthly basis Such capital improvement cost invoicing shall appear on billing separate from the monthly O&M Cost billing. The Parties expect that, after a new capital expenditure is approved by the Parties, the City will bill the Districts (and CWA, as applicable) as design, engineering, construction and related incidental expenses of such project occurs.

5. **Capital Cost Dispute Resolution Procedure.** Subject to the reasonable right to dispute the amount of such bills as set forth in Section 20, the Districts agree to pay such bills. Within 180 days after the end of each Fiscal Year, the City will reconcile the estimated Capital Cost billing with the actual capital cost billing.

12. WATER ACCOUNTING

A. **City to Maintain Books and Records.** The City shall keep books, records, documents and other evidence pertaining to water quantities, water ownership, storage and other Lake Hodges operational issues to the extent and in such detail as necessary to reflect such water accounting. The City shall maintain such books, records, documents and other evidence for a minimum of four years after completion of the last entry or four years after resolution of any relevant disputes arising therefrom, whichever is longer. The City shall make available at the City's offices at reasonable times such books, records, documents and other evidence for inspection and audit by the Districts.

B. **Water Inventory/Accounting.** The City shall use reliable methods, including measurement where possible, to quantify the amount of water, including Local Water and Imported Water, entering Lake Hodges on a daily basis. The City shall maintain water inventory and accounting records in detail sufficient to conform with the provisions of the RRM. The City shall maintain daily records when available to measure the quantity of water withdrawn from the Lake Hodges Reservoir by CWA pipelines. The City/Districts' shall also measure the quantity of water withdrawn from the Lake Hodges Reservoir by the Districts and the City, and record such measurements daily, when available. Daily information will be used to calculate monthly hydrography records and reports.

C. **Evaporation and Other Losses.**

1. **Allocation.** Pursuant to the City-CWA Agreement, CWA bears two-thirds (2/3) of all losses from seepage, evaporation, and unaccounted for losses. The City and Districts bear the remaining one-third (1/3) of all such losses. The City and Districts shall share the remaining one-third (1/3) losses in proportion to the beginning of month storage amounts for each Party.

2. **Evaporation Loss Accounting.** Evaporation Losses shall be calculated and information on such losses distributed by the City to the Districts at least monthly. All accounting information provided to the Districts shall display Evaporation Losses incurred by the City, the Districts and CWA.

13. WATER SALES/TRANSFERS

A. **Water Transfers Permitted.** Nothing in this Amendment is intended to preclude any Party from selling, transferring or conveying Local Water to another Party, to CWA, or to any third party. Provided, however, that if any Party conveys Local Water to an entity, such Party shall be entirely responsible for the costs associated with moving such water (which cost is expected to be the cost of pumping and CWA's transportation charge). Water to be transferred, whether during a Spill Event or at another time, shall be placed in storage at a location other than Lake Hodges or otherwise put to beneficial use.

B. **Access to CWA Pipeline and Pumping Plant.** The Districts and the City agree that each Party shall share access to the City-owned and CWA-owned Lake Hodges Project facilities (i.e., the "City Component" and the "Authority Components" defined in the City-CWA Agreement), to divert water at all times, including during Spill Events. The Districts shall be entitled to 50% of the available capacity of the Lake Hodges Projects facilities, less 50% of the total volume of water diverted by the Districts through the City-owned Hodges Dam Outlet (See Example in Section 7B). Any Party's use of the CWA-owned Lake Hodges Project facilities shall

be subject to any CWA terms and conditions associated with the use of such facilities.

C. **Water Sales to CWA.** The Parties agree to cooperate regarding the establishment of agreement(s) by one or all Parties to sell or otherwise transfer water to CWA. Any water sold, either directly or through a paper transfer, to CWA shall be equally shared from each (City and Districts) respective storage pool, unless one Party decides not to participate in such sale.

D. **Removing Another Party's Water.** Neither Party has the right to move water out of Lake Hodges that belongs to the other Party, unless the Party has received permission in writing from the other Party to do so. If any Party removes another Party's water from Lake Hodges without permission, the entity responsible for such water removal shall replace such removed water within 30 calendar days or, if approved by the Party whose water was removed, pay for such removed water at CWA's imported untreated water rate, including transportation charges, within 30 days.

14. OPERATIONAL ISSUES RELATED TO DISTRICT DIVERSIONS

A. **Districts' Diversion Points.** Unless otherwise agreed to in writing by the Parties, measurement and diversion of Local Water by the Districts shall be as follows:

1. At the Districts' diversion point downstream from the City's flow meter at the outlet ("Outlet") of the Lake Hodges dam.

2. As applicable, at the CWA flow control facility (FCF SDSF 3, 4 & 5) at the Districts' R.E. Badger Filtration Plant.

3. At any other location agreed to by the Parties, provided any necessary arrangements are made with the City or CWA, or both.

B. **Facilities / Outlets Maintenance.** The City shall at all times retain the responsibility and obligation for the operation, maintenance, repair, replacement and/or rehabilitation of the Lake Hodges Dam and Reservoir, including all associated facilities owned or operated by the City. The City shall maintain the Outlet and any associated meters/metering devices ("Meters") in good condition and repair at all times as is possible through the exercise of ordinary care. The costs associated with operating and maintaining the Outlets and Meters shall be included as part of O&M Costs and shared per terms of Section 10, above. The Districts shall have the right to annually inspect the Outlet and test the Meters for accuracy, with a representative of the City present if so desired by City, at reasonable times during business hours with reasonable notice. The Districts shall also have the right, if they so desire, to have a representative present at any test or reading of any Meters by the City. The Districts also have the right, at their own cost, to have third parties undertake

independent Meter testing.

15. WATER QUALITY

The City shall operate Lake Hodges and all of its facilities in a manner that conforms to the requirements of all local, state and federal laws and regulations regarding water quality collected in Lake Hodges. Except as provided in this paragraph, the City does not make any assurances concerning the quality of water in Lake Hodges.

16. EFFECT OF THIS AMENDMENT

Subject to the terms of Paragraph 3, above, this Amendment is intended to amend and restate in its entirety the provisions of the 1998 Agreement regarding operations of Lake Hodges upon and following the Effective Date. The City-CWA Agreement specifically acknowledges the existence and rights of the Parties under the 1998 Agreement and Section 6.3 of the City-CWA Agreement provides for the modification of the 1998 Agreement under certain terms and conditions and that any such modification shall not be a breach of the City-CWA Agreement. The City acknowledges that Santa Fe and San Dieguito are not parties to the City-CWA Agreement and that the City shall be solely responsible for any action taken by CWA alleging that the Amendment is not a permitted modification under Section 6.3 of the City-CWA Agreement or seeking to enforce the terms of Section 6.3 with respect to losses or diminished use by CWA as a result of the 1998 Agreement and any modification thereto. The City shall indemnify and defend Santa Fe and San Dieguito from any cause of action by CWA which arises in connection with the implementation of this Amendment.

17. NO ADVERSE EFFECT ON DISTRICTS' RIGHTS

The Parties agree that nothing contained in any future agreement between the City and CWA, or the City and any other party, shall adversely affect the rights of the Districts as set forth herein. Should the City take any actions related to Lake Hodges operations over the objections of the Districts or in a manner that substantially comprises the interests of the Districts, or which compromise the ability of the Districts to obtain their Local Water supplies, the Districts explicitly reserve their right to contest such action as provided herein, including but not limited to in a court proceeding, as set forth in Section 27, below.

18. CHANGED CIRCUMSTANCES / OPTION TO PURCHASE LAKE HODGES

In the event the City, CWA or any other Party terminates or substantially changes operations of Lake Hodges so as to significantly reduce or eliminate the ability of the Districts to obtain and store Local Water therein, (1) the Parties shall meet and confer as to next steps and to determine the continued applicability, if any, of this Amendment; and (2) the Districts shall have and are hereby conveyed the right of first refusal to purchase Lake Hodges and Hodges Dam.

19. CONFLICTS BETWEEN TERMS

If a conflict exists between an applicable federal, state, or local law, rule, regulation, order, or code and this Amendment, the law, rule, regulation, order, or code shall control. Varying degrees of stringency among the main body of this Amendment, , and laws, rules, regulations, orders, or codes are not deemed conflicts, and the most stringent requirement shall control. Each Party shall notify the other immediately upon the identification of any apparent conflict or inconsistency concerning this Amendment.

20. PRE-MEDIATION DISPUTE RESOLUTION PROCESS

Any controversies arising out of the interpretation or application of this Amendment or the refusal of any party to perform the whole or any part thereof shall first be addressed through negotiation by the Parties in the following order:

(1) Staff of the Parties will attempt to resolve/settle any disputes;

(2) If Party staff is unable to resolve the dispute, Party management (or their designees) will attempt to resolve the dispute;

(3) If Party management is unable to resolve the dispute, then Party executive management will attempt to resolve the dispute.

Thereafter, if the dispute cannot be resolved through the above-described process, mediation/legal remedies may be sought by any Party per the terms of this Amendment.

21. MEDIATION

A. **Mandatory Non-binding Mediation.** If a dispute arises out of, or relates to this Amendment, or the breach thereof, and if said dispute cannot be settled through normal contract negotiations or through the pre-mediation dispute resolution process described above, prior to the initiation of any litigation, the Parties agree to attempt to settle the dispute in an amicable manner, using mandatory mediation under the Mediation Rules of the American Arbitration Association (AAA) or any other neutral organization agreed upon before having recourse in a court of law.

B. **Mandatory Mediation Costs.** The expenses of witnesses for either side shall be paid by the Party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator ("Mediator"), and the cost of any proofs or expert advice produced at the direct request of the Mediator, shall be borne equally by the Parties, unless they agree otherwise, with the Districts bearing, collectively 50% of such cost, and the City bearing the other 50% of such cost.

C. **Selection of Mediator.** A single Mediator that is acceptable to both Parties shall be used to mediate the dispute. The Mediator will be knowledgeable in water law or water engineering and may be selected from lists furnished by the AAA or any other agreed upon Mediator. To initiate mediation, the initiating Party shall serve a Request for Mediation on the opposing Party. If the Mediator is selected from a list provided by AAA, the initiating Party shall concurrently file with AAA a "Request for Mediation" along with the appropriate fees, a list of three requested Mediators marked in preference order, and a preference for available dates.

1. If AAA is selected to coordinate the mediation, within ten working days from the receipt of the initiating Party's Request for Mediation, the opposing Party shall file the following: a list of preferred Mediators listed in preference order after striking any Mediators to which they have any objection, and a preference for available dates. If the opposing Party strikes all of initiating Party's preferred Mediators, the opposing Party shall submit a list of three preferred Mediators listed in preference order to initiating Party and "Administrator". The initiating Party shall file a list of preferred Mediators listed in preference order, after striking any Mediator to which they have any objection. This process shall continue until both sides have agreed upon a Mediator.

2. The Administrator will appoint or the Parties shall agree upon the highest, mutually preferred Mediator from the individual Parties' lists who is available to serve within the designated time frame.

3. If the Parties agree not to use AAA, then a Mediator, date and place for the mediation shall be mutually agreed upon.

D. **Conduct of Mediation Sessions.** Mediation hearings will be conducted in an informal manner and discovery will not be allowed. All discussions, statements, or admissions will be confidential to the Party's legal position. The Parties may agree to exchange any information they deem necessary.

1. Both Parties must have an authorized representative attend the mediation. Each representative must have the authority to recommend entering into a settlement. Either Party may have attorney(s) or expert(s) present. Upon reasonable demand, either Party may request and receive a list of witnesses and notification whether attorney(s) will be present.

2. Any agreements resulting from mediation shall be documented in writing. All mediation results and documentation, by themselves, shall be "non-binding" and inadmissible for any purpose in any legal proceeding, unless such admission is otherwise agreed upon, in writing, by both Parties. Mediators shall not be subject to any

subpoena or liability and their actions shall not be subject to discovery.

E. **Post-Mediation Rights.** If any dispute cannot be resolved through the mediation process described in this Section 21, any Party may, subject to the provisions of Section 27, below, bring suit to resolve the dispute.

22. INDEMNITY OBLIGATIONS

A. **Mutual Indemnification.** Each Party shall indemnify, defend, protect and hold harmless the other Party, their elected officials, officers, agents, employees, successors and assigns from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other professional, expert or consultants' fees and costs) of every kind and nature whatsoever (each a "Claim" and collectively, "Claims") which may arise from or in any manner relate to: (1) any violation of the obligations of the Parties under this Amendment, including without any limitation, any actual or alleged violation of any Legal Requirements, as defined in Paragraph 23; and (2) the negligent acts, omissions and/or willful misconduct of the Parties, their employees, agents, or contractors.

B. **Defense of Third Party Claims.** The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of the indemnifying party. Such defense obligation shall arise immediately upon presentation of written notice to the indemnifying party of a Claim by any indemnified party. Promptly following receipt of any written claim or legal proceeding asserted by a person or entity which is not a party to this Amendment ("Third Party Claim"), the indemnified party shall notify the indemnifying party of such claim in writing. In matters that pose no conflict of interest, the indemnifying party thereafter shall undertake and diligently pursue the defense of the Third Party Claim with counsel reasonably acceptable to the indemnified party; provided, however, that the indemnifying party shall not consent to entry of judgment or enter into any settlement agreement without the consent of the indemnified party, which does not include a complete and unconditional agreement of the indemnified party or which imposes injunctive or other equitable relief against the indemnified party. If the indemnifying party fails to assume and diligently pursue the defense of a Third Party Claim, the indemnified party may defend against such Third Party Claim in such manner as it may deem appropriate, including without limitation, settlement thereof on such terms as the indemnified party may reasonably deem appropriate, and to pursue such remedies as may be available to the indemnified party against the indemnifying party. Notwithstanding the foregoing, the indemnified party

shall not consent to entry of judgment or enter into any settlement agreement without the consent of the indemnifying party, which does not include a complete and unconditional agreement of indemnifying party or which imposes injunctive or other equitable relief against indemnifying party.

C. **Survival of Indemnification/ Defense of Third Party Claims Obligations.** The indemnifying party's indemnification and defense obligations hereunder shall survive the expiration or earlier termination of this Amendment until such time as action against any indemnified party for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.

23. COMPLIANCE WITH ALL LAWS

The City shall operate and maintain Lake Hodges and Lake Hodges Dam in strict accordance with all state, federal and local laws and regulations ("Legal Requirements"), including but not limited to those pertaining to water quality, water rights, public health and safety, and recreational use, and will make all reasonable efforts to maintain and repair Lake Hodges and Lake Hodges Dam to continue operations in order to maintain the maximum annual average yield of Local Water. To the extent any violation of the Legal Requirements arises as a result of any particular Party's action or inaction, such Party shall be solely responsible for any and all costs arising from such action or inaction, including any costs required to remedy the violations of such Legal Requirements. The City makes no assurances, legal or otherwise, as to water quality in Lake Hodges.

24. UPSTREAM CITY WATER PROJECT

The Districts understand that the City may now or in the future operate a groundwater extraction, storage and/or recovery, or other project ("Upstream City Water Project") in areas within the watershed (e.g., San Pasqual Valley), and upstream, of Lake Hodges which may reduce the volume of water reaching Lake Hodges or otherwise potentially adversely affect Lake Hodges water volumes or water quality. The City shall provide any California Environmental Quality Act, other environmental and other documents related to any Upstream City Water Project, including any public notices, to the Districts as soon as they are made available to the public. The Districts reserve all rights to object to or challenge any Upstream City Water Project. The Parties agree to work cooperatively with respect to any project or activity upstream of Lake Hodges, including those not involving or sponsored by the City or the Districts, which could potentially adversely affect the volume or quality of water reaching Lake Hodges.

25. BINDING AGREEMENT

This Amendment shall be binding on and inure to the benefit of the successors and assigns of the respective parties.

26. NOTICES

Except for monthly O&M cost bills sent by City to Districts, any notice, demand, or payment required to be given herein shall be made by certified or registered mail, return receipt requested, or reliable overnight courier to the address of the respective Parties set forth below. Any change in address by any Party shall be provided to all Parties within thirty (30) days following such change.

SAN DIEGUITO WATER DISTRICT
505 South Vulcan Ave.
Encinitas, CA 92024-3633
Attn: Director of Public Works

SANTA FE IRRIGATION DISTRICT
P. O. Box 409
5920 Linea del Cielo
Rancho Santa Fe, CA 92067
Attn: General Manager

CITY OF SAN DIEGO
City of San Diego, Public Utilities Department
9192 Topaz Way
San Diego, CA 92123
Attn: Director of Public Utilities

27. GOVERNING LAW

Should any Party to this Amendment bring legal action against one or more of the others to enforce the provisions of this Amendment, the case shall be handled pursuant to California law and filed and maintained in the Superior Court of the County of San Diego.

28. NO ADMISSION OF LIABILITY

The Parties understand and agree that this Amendment is not to be construed as an admission of liability whatsoever on the part of any of them, and that the release is made solely for the purpose of avoiding the burden and expense which would be imposed upon the Parties through litigation.

29. CONSULTATION WITH LEGAL COUNSEL

The Parties represent that they have consulted legal counsel prior to the execution of this Amendment and have executed this Amendment with full knowledge of its meaning and effect.

30. EXECUTION OF TERMS OF AGREEMENT

The Parties agree to perform any acts and execute any documents consistent with the terms and conditions of this Amendment which may be needed, desired or required to effectuate the terms, conditions and provisions hereof.

31. ATTORNEYS' FEES INCURRED IN RESOLVING THE DISPUTE

The Parties agree that they will not seek attorneys' fees or costs that have been incurred in resolving the disputes or issues against one another described herein.

32. DRAFTING OF AMENDMENT

The Parties agree that this Amendment shall not be construed in favor of, or against, any Party by reason of the extent to which any Party or its counsel participated in the drafting of this Amendment.

33. MODIFICATION OF AMENDMENT

This Amendment may be amended only by a writing signed by each of the Parties hereto.

34. INVALIDITY; SEVERABILITY

If any portion of this Amendment is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect, unless otherwise agreed to by all Parties.

35. WAIVER

No waiver of any default under this Amendment shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel, or otherwise.

36. NO THIRD-PARTY BENEFICIARIES

There are no intended third party beneficiaries of any right or obligation assumed by the Parties under this Amendment.

37. AUTHORITY TO ENTER AGREEMENT

Each Party has all requisite power and authority to conduct its business and to execute, deliver, and perform the Amendment. Each Party warrants that the individuals who have signed this Amendment have the legal power, right, and authority to execute this Amendment and bind each respective Party.

38. COUNTERPARTS

This Amendment may be executed in separate counterparts, the whole of which shall constitute a binding agreement. Facsimile signatures, when received, shall have the same force and effect as original signatures.

39. INTEGRATION

This Amendment and references incorporated into this Amendment fully express all understandings of the Parties concerning the matters covered in this Amendment. No change, alteration, amendment, or modification of the terms or conditions of this Amendment, and no verbal understanding of the Parties, their officers, agents, or employees shall be valid unless made in the form of a written change agreed to in writing by both Parties. All prior negotiations and agreements are merged into this Amendment.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment on the day and year first above written.

CITY OF SAN DIEGO

BY: _____

Approved as to form and legality
this 27th day of October, 2014
JAN I. GOLDSMITH, City Attorney
By _____
Deputy City Attorney

APPROVED AS TO FORM AND LEGALITY:
GENERAL COUNSEL

By: _____

SANTA FE IRRIGATION DISTRICT

By: _____

Michael T. Hogan
Board President

APPROVED AS TO FORM:
BEST BEST & KRIEGER LLP

By: _____

SAN DIEGUITO WATER DISTRICT

By: _____

Tony Kranz
Board President

ATTEST

By: _____

City of Encinitas, City Clerk

Item #-5L
9/30/14
(O-2014-121)

ORDINANCE NUMBER O- 20412 (NEW SERIES)

DATE OF FINAL PASSAGE OCT 14 2014

AN ORDINANCE OF THE COUNCIL OF THE CITY OF SAN DIEGO AUTHORIZING TO EXECUTE THE FIRST AMENDMENT TO AND RESTATEMENT OF THE MARCH 17, 1998, AGREEMENT (OO-18474) BETWEEN THE CITY OF SAN DIEGO, THE SAN DIEGUITO WATER DISTRICT AND SANTA FE IRRIGATION DISTRICT FOR THE STORAGE AND OPERATION OF THE LAKE HODGES RESERVOIR.

WHEREAS, on March 17, 1998, the City of San Diego (City), a municipal corporation, Santa Fe Irrigation District (Santa Fe), a California irrigation district, and San Dieguito Water District (San Dieguito), a California irrigation district, entered into an agreement that rescinded all previous agreements between the Parties and restated their respective rights with respect to the operation and storage of the Lake Hodges Reservoir (City of San Diego Document No. 00-18474) (1998 Agreement); and

WHEREAS, by agreement dated May 26, 1998, as City Document No. 00-18521-2 (City-CWA Agreement), the City entered into an agreement with SDCWA to provide emergency water storage at Lake Hodges Reservoir as a part of the SDCWA's Emergency Water Storage Project; and

WHEREAS, in 2008, the Parties had a disagreement regarding the interpretation of the 1998 Agreement and the City-CWA Agreement which resulted in the Districts filing a lawsuit against the City. In the lawsuit, the Districts alleged, among other claims, that the City-CWA Agreement infringed upon the Districts' rights and interests in Lake Hodges which the City denied each of those claims; and

WHEREAS, after the lawsuit was filed, the Districts and the City began renegotiating the 1998 Agreement to clarify the agreement's terms. These negotiations lead the Districts to dismiss their lawsuit without prejudice on or about November 18, 2010; and

WHEREAS, the new agreement will clarify issues that were previously not well defined in the 1998 Agreement and provide the City access to move water out of the Lake Hodges Reservoir; NOW, THEREFORE,

BE IT ORDAINED, by the Council of the City of San Diego, as follows:

Section 1. That the Mayor, or designee, is authorized to execute, for and on behalf of the City, the First Amendment to and Restatement to the March 17, 1998 Agreement (OO-18474) between the City of San Diego, the San Dieguito Water District and Santa Fe Irrigation District to clarify the respective rights concerning the water supply operation and storage of water in Lake Hodges Reservoir, under the terms and conditions set forth in the Agreement on file in the Office of the City Clerk as Document No. OO- 20412 together with any reasonably necessary modifications or amendments thereto which do not increase project scope or cost and which the Mayor shall deem necessary from time to time in order to carry out the purposes and intent of this project and agreement.

Section 2. That the Chief Financial Officer, upon advice from the administering department, is authorized to transfer excess funds, if any, to the appropriate reserves.

Section 3. That a full reading of this ordinance is dispensed with prior to its passage, a written or printed copy having been made available to the City Council and the public prior to the day of its passage.

Section 4. That this ordinance shall take effect and be in force on the thirtieth day from and after its final passage.

APPROVED: JAN I. GOLDSMITH, City Attorney

By _____
Mark M. Mercer
Deputy City Attorney

MMM:cw
07/29/14
Or.Dept: Public Utilities
CC: N/A
Doc. No. 797066_2

I hereby certify that the foregoing Ordinance was passed by the Council of the City of San Diego, at this meeting of SEP 30 2014.

ELIZABETH S. MALAND
City Clerk

By _____
Deputy City Clerk

Approved: 10/14/14
(date)

_____
KEVIN L. FAULCONER, Mayor

Vetoed: _____
(date)

_____
KEVIN L. FAULCONER, Mayor

Passed by the Council of The City of San Diego on SEP 30 2014, by the following vote:

Councilmembers	Yeas	Nays	Not Present	Recused
Sherri Lightner	☑	☐	☐	☐
Ed Harris	☑	☐	☐	☐
Todd Gloria	☑	☐	☐	☐
Myrtle Cole	☑	☐	☐	☐
Mark Kersey	☑	☐	☐	☐
Lorie Zapf	☑	☐	☐	☐
Scott Sherman	☑	☐	☐	☐
David Alvarez	☑	☐	☐	☐
Marti Emerald	☑	☐	☐	☐

Date of final passage OCT 14 2014.

AUTHENTICATED BY:

KEVIN L. FAULCONER
Mayor of The City of San Diego, California.

(Seal)

ELIZABETH S. MALAND
City Clerk of The City of San Diego, California.

By _____, Deputy

I HEREBY CERTIFY that the foregoing ordinance was not finally passed until twelve calendar days had elapsed between the day of its introduction and the day of its final passage, to wit, on SEP 16 2014, and on OCT 14 2014.

I FURTHER CERTIFY that said ordinance was read in full prior to passage or that such reading was dispensed with by a vote of five members of the Council, and that a written copy of the ordinance was made available to each member of the Council and the public prior to the day of its passage.

(Seal)

ELIZABETH S. MALAND
City Clerk of The City of San Diego, California.

By _____, Deputy

Office of the City Clerk, San Diego, California

Ordinance Number O-20412

Passed by the Council of The City of San Diego on September 30, 2014 by the following vote:

YEAS:	**LIGHTNER, HARRIS, GLORIA, COLE, KERSEY, ZAPF, SHERMAN, ALVAREZ, EMERALD.**
NAYS:	**NONE.**
VACANT:	**NONE.**
NOT PRESENT:	**NONE.**
RECUSED:	**NONE.**

AUTHENTICATED BY:

KEVIN L. FAULCONER

Mayor of The City of San Diego, California

ELIZABETH S. MALAND

City Clerk of The City of San Diego, California

(Seal)

By: _____, Deputy

I HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of ORDINANCE NO. **O – 20412** (New Series) of The City of San Diego, California.

I FURTHER CERTIFY that said ordinance was not finally passed until twelve calendar days had elapsed between the day of its introduction and the day of its final passage, to wit, on **September 16, 2014** and on **October 14, 2014.**

I FURTHER CERTIFY that the said ordinance was read in full prior to passage or that such reading was dispensed with by a vote of five members of the Council, and that a written copy of the ordinance was made available for the consideration of each member of the Council and the public prior to the day of its passage.

ELIZABETH S. MALAND

City Clerk of The City of San Diego, California

(SEAL)

By: _____, Deputy

Appendix I: District Water Sustainability Plan

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San Dieguito Water District
Water Sustainability Plan

June 2016

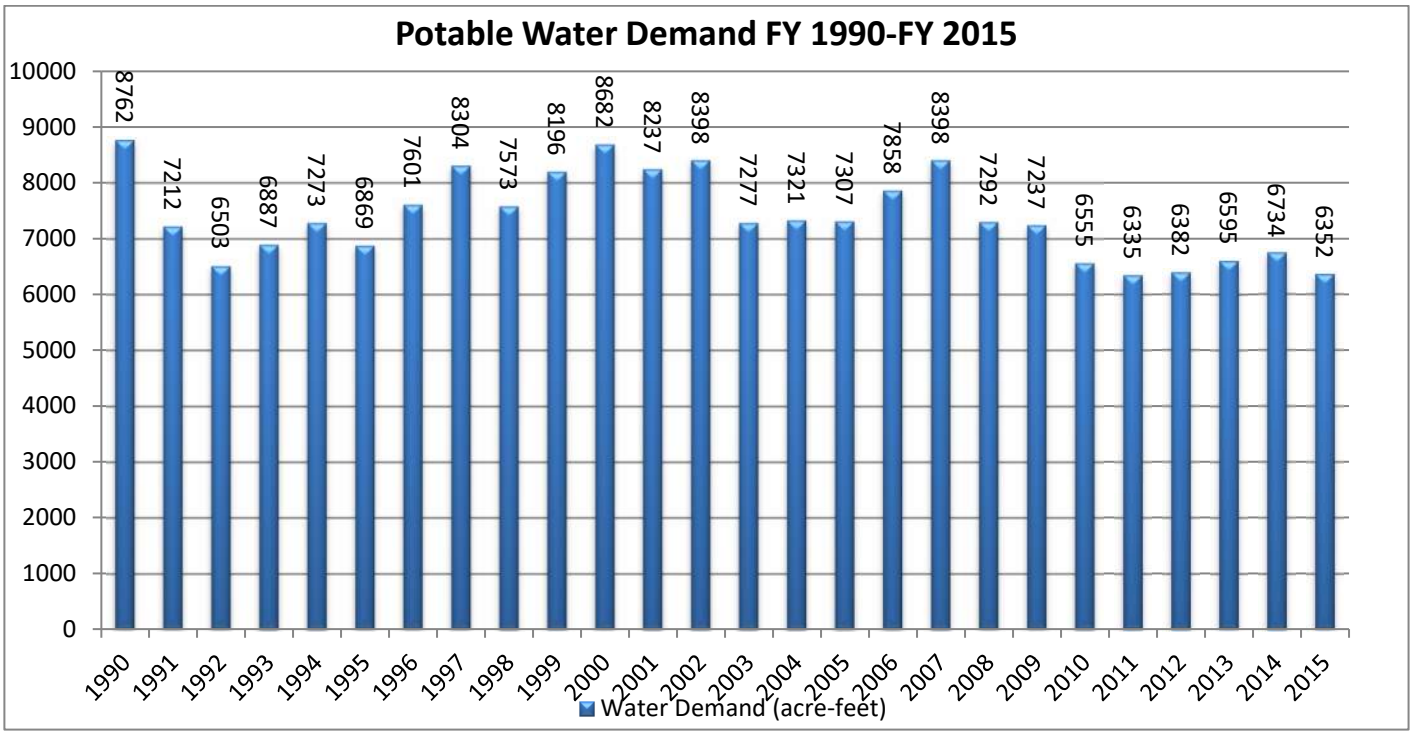
Section 1
Background

Water is one of the most basic needs for life. San Dieguito Water District (District) customers depend on it for their health, well-being, and public safety. Providing a reliable, sustainable supply of water is a principal function of the District. The Urban Water Management Plan (UWMP) provides the core elements for a water sustainability plan, however the reporting structure for the UWMP is rather rigid, which makes it challenging to succinctly document the District's current and future efforts to achieve water sustainability. Therefore, this report has been added to provide a clear picture of the District's Water Sustainability Plan.

In order to plan for water sustainability, it is important to first understand the water demands of its customers along with the supply available to meet those demands. This section provides a description of the District's historical and projected water demands and current water supply portfolio.

1.1 District Historical Potable Water Demands

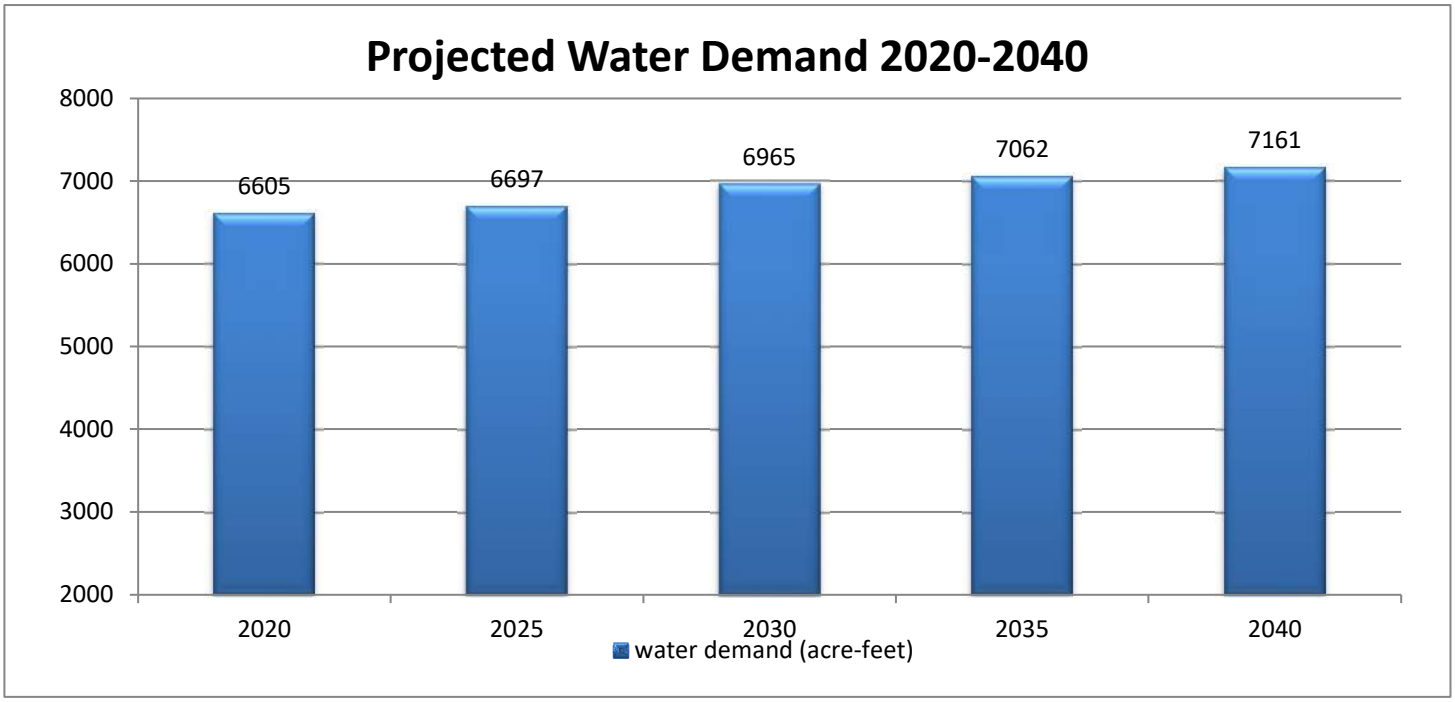
The graph below shows the District's historical water demands from Fiscal Year (FY) 1990 to FY 2015.



Water demand in the District increased steadily in the 1980s, and the District reached its peak demand in 1990 when customers used 8,762 acre-feet of water. Due to a severe drought in the early 1990s, water agencies in San Diego County (County) were required to significantly reduce water use. To reduce the region's vulnerability to future droughts, County water agencies began to implement water conservation programs that improved water-use efficiency for residential, commercial, and agricultural customers. Due to the water conservation efforts, water demand in the District decreased in the early 1990s. New development within the District in the mid to late 1990s brought about an increase in water demand. The District began serving recycled water in 2000. As recycled water use increased, the District again saw a decrease in potable water demand beginning in 2003. A drought lasting from 2008 through 2011 and the current drought that began in 2012, have resulted in an additional decrease in water demand.

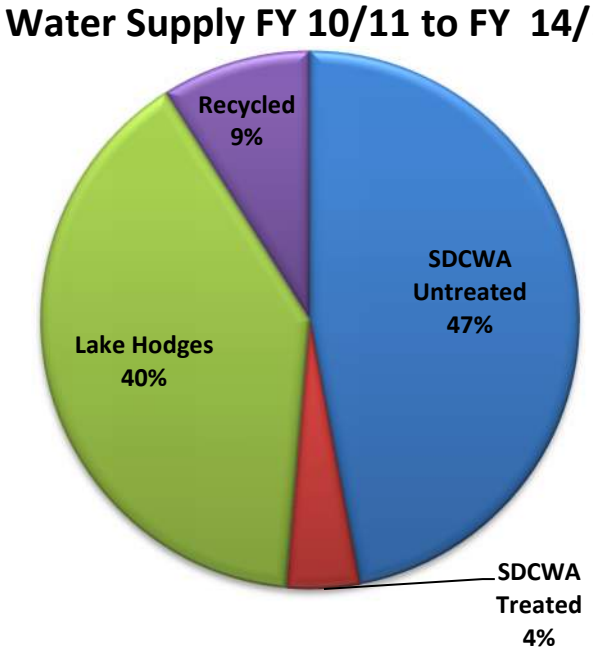
1.2 Projected Potable Water Demand

The District is over 90% built out, so future growth within the District will be minimal. Therefore, the projected increases in potable water use are relatively small. The following graph shows projected potable water demand from 2020 to 2040.



1.3 District Water Supply

The District is fortunate to have a relatively diverse water supply portfolio. The District utilizes local water from Lake Hodges, treated and untreated imported water from the San Diego County Water Authority (SDCWA), and recycled water from the San Elijo Joint Powers Authority. The water supply portfolio over the last five years is shown in the chart below.



1.3.1 Lake Hodges

The District has held certain rights to Lake Hodges water since 1923. Current rights entitle the District to 21.33% of the inflow into Lake Hodges.

1.3.2 SDCWA Untreated Water

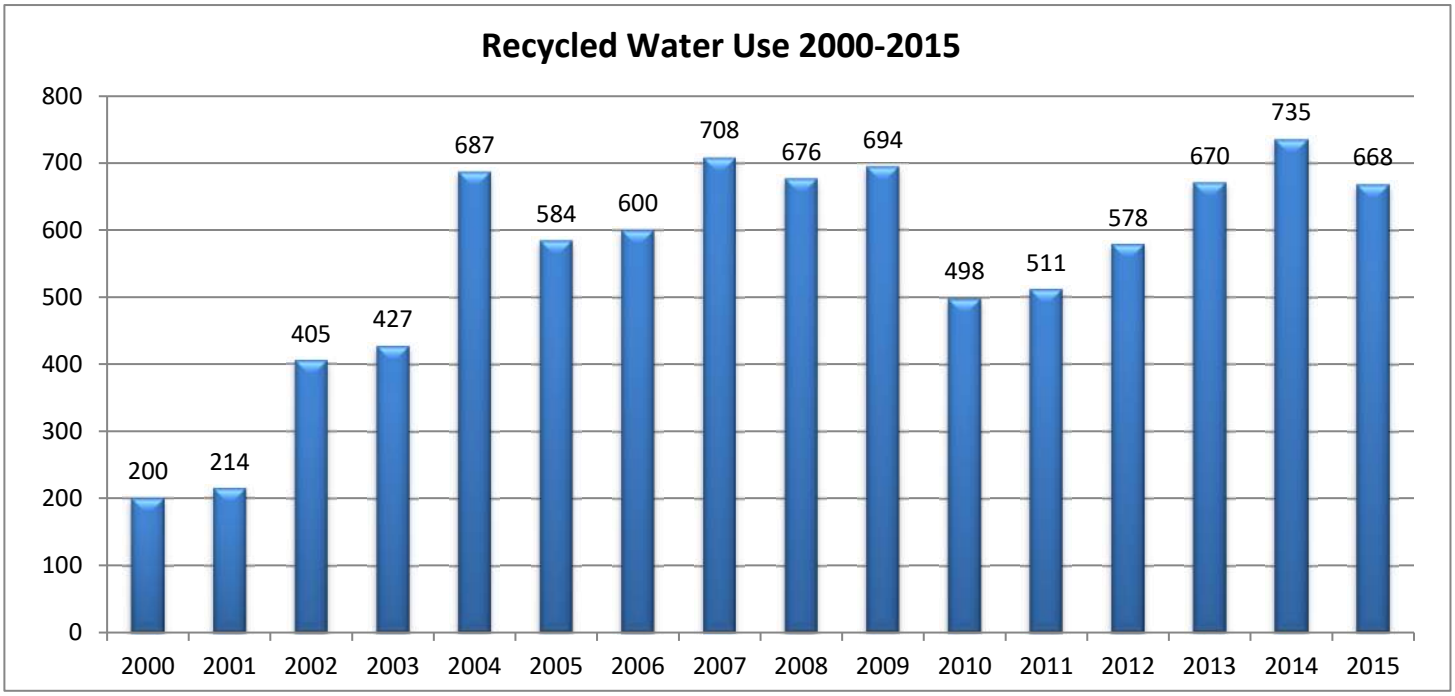
The District purchases untreated imported water from the SDCWA. This water is typically blended with Lake Hodges water and treated at the R.E. Badger Filtration Plant (Filtration Plant) which is jointly owned with the Santa Fe Irrigation District.

1.3.3 SDCWA Treated Water

The District typically purchases a small amount of treated imported water from SDCWA each year. The treated imported water is typically used when the Filtration Plant is shut down to undergo routine annual maintenance.

1.3.4 Recycled Water

The District has been serving recycled water since 2000. The recycled water is produced by the SEJPA at its San Elijo Water Reclamation Plant. This water, treated to tertiary standards, is used to irrigate the Encinitas Ranch Golf Course, various parks, schoolyards, HOA common areas, and center medians. Recycled water use within the District is shown in the graph below.



Recycled water use steadily grew from 2000 to 2009. During the height of the 2008 to 2011 drought, when the District was requiring customers to reduce potable water use, recycled water customers also significantly decreased their use. Recycled water use began to rise again as new customers were added to the system.

Section 2
Water Sustainability Plan

There is no single answer to enhancing water sustainability. An agency must utilize a combination of demand management measures and water supply enhancement to maximize reliability and sustainability. This section discusses the District's current efforts in achieving water sustainability.

2.1 Water Demand Management Measures

The objective of water demand management is to reduce overall water demand. The District achieves demand reduction through its water conservation program and by minimizing water losses in the distribution system.

2.1.1 Water Conservation Programs

Water conservation is typically the most inexpensive tool for achieving water reliability. Many water conservation programs cost approximately $100 to $200 per acre-foot of water saved. That is significantly less than imported water ($1,165 per acre-foot) or recycled water ($1,356 per acre-foot).

The District began implementing water conservation programs in the early 1990s. In 1991, the District became a signatory of the California Urban Water Conservation Council's Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). In signing the MOU, the District committed to making a good faith effort to implement certain urban water conservation Best Management Practices. That commitment continues today.

Water conservation programs and outreach offered by the District, often times in collaboration with other agencies including SDCWA and Metropolitan Water District of Southern California (MWD), include the following:

- Water conservation rebates and incentives
- Commercial and residential conservation audits and surveys
- Professional and residential workshops
- Customer outreach and education
- Large landscape budgets
- Water conservation contests

In order to remain effective, water conservation measures have evolved over time. In the 1990s, the focus was on reducing indoor water use, mainly through the replacement of inefficient toilets and showerheads. Once a majority of toilets and showerheads had been replaced, new measures were implemented. Today, the primary focus of water conservation methods is to the reduction of outdoor water use.

2.1.2 System Water Loss Control

All agencies experience some water loss within their water system each year. Fire hydrants are knocked over, water mains occasionally develop leaks, and dead-end mains must be flushed regularly to maintain water quality. According to the American Water Works Association, the average water agency experiences an annual water loss of 8% to 12% of its total demand. The District's average water loss over the last five years is 2.4% of total demand. To put this in perspective, if the District's water losses were equal to the

industry average of 10% instead of 2.4%, the District would be losing an additional 160 million gallons of water each year. Measures that District staff take to minimize water losses include the following:

- Meter Replacement Program - The District replaces water meters every 12 to 15 years. Meters older than 15 years begin to under-read, which increases water loss.
- Non-destructive testing of water mains – Performing non-destructive testing on water mains provides staff with an assessment of the remaining life of the main. Knowing the approximate remaining life of a main allows staff to maximize the useful life of the pipe and plan for the replacement of the main before problems occur. Non-destructive testing also includes leak detection, so any leaks that are found can be repaired.
- Utilize recycled water for fire hydrants at the San Elijo Water Reclamation Facility – Providing fire flow to the facility creates certain water quality issues that can only be resolved by periodically flushing the potable water from the main. The District is currently working on a project that will allow the fire hydrants at the facility to utilize recycled water. When the project is complete, the District will see a reduction in system water loss due to reduced system flushing.

2.1.3 Water Supply Shortage Response Plan

San Diego County is a semi-arid region with limited local water supply sources. The District may experience water supply shortages due to drought conditions, regulatory restrictions placed upon imported water supplies, and other factors. Planning for water supply shortages is essential in order to assure adequate supplies of water are available to meet the needs of the public, and further the public health, safety and welfare of the customers. The District's Water Supply Shortage Response Program (Program) establishes four levels of water supply response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing available supplies. The Program allows the District to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner.

2.2 Water Supply Enhancement

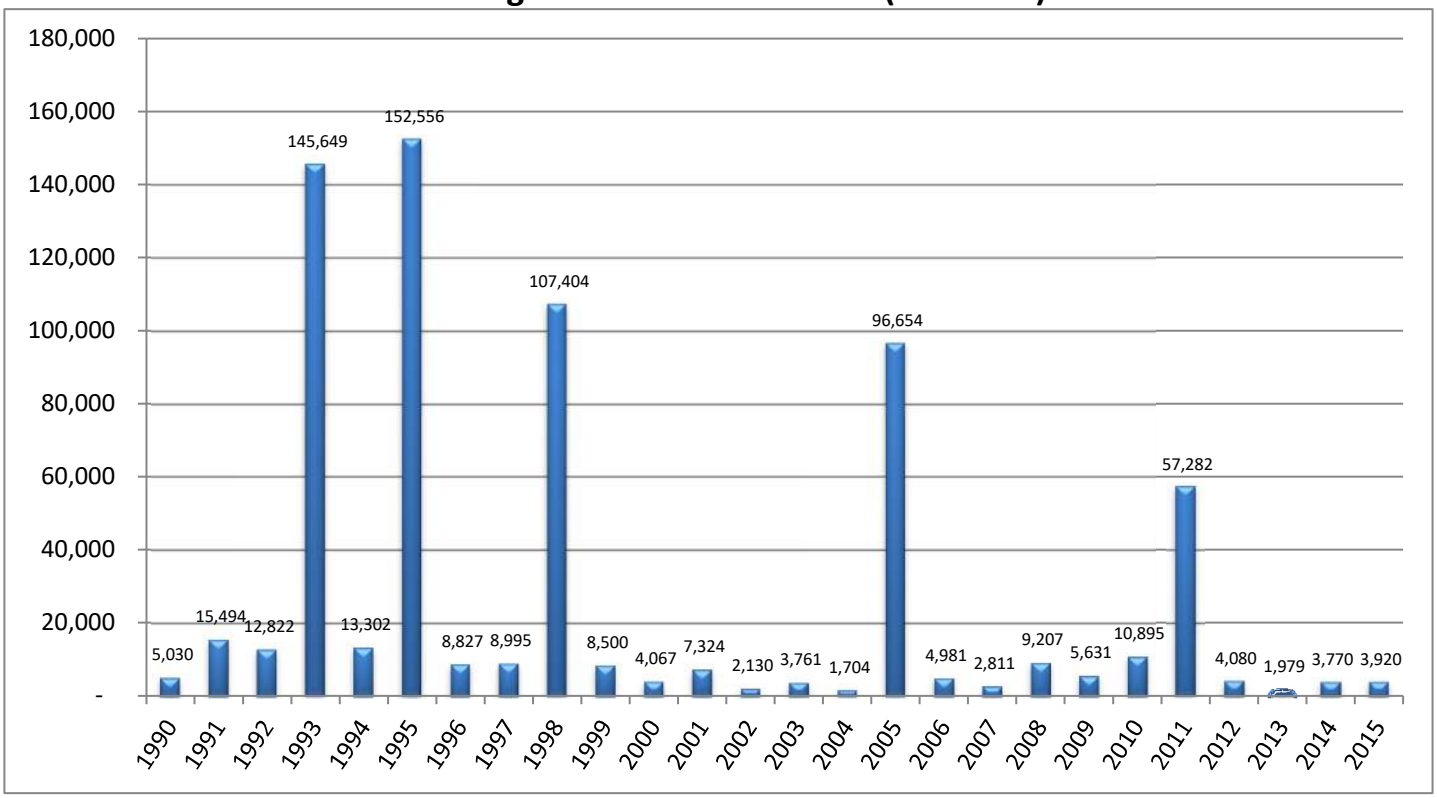
The objective of water supply enhancement is to diversify the District's water supply portfolio. The District has several options that are currently being pursued in order to enhance its water supplies.

2.2.1 Maximize the Use of Lake Hodges Water

In 2012, SDCWA completed the Lake Hodges Project portion of their Emergency Storage Project. With the completion of this project, Lake Hodges water could now be pumped out of the lake and into the SDCWA delivery system. In 2014, an Amendment to and Restatement of the March 17, 1998 Agreement between the City of San Diego, Santa Fe Irrigation District, and San Dieguito Water District (Amended Agreement) was completed. In the Amended Agreement, San Dieguito Water District and Santa Fe Irrigation District were given the right to equally share the capacity to remove water from Lake Hodges. This could then allow the District to sell excess water to other agencies or store excess water in another agency's reservoir.

The following graph, which shows historical Lake Hodges inflow data, illustrates the importance of having the ability to transfer water out of Lake Hodges in order for the District to maximize the use of this resource.

Lake Hodges Inflow 1990 to 2015 (acre-feet)



Inflow into Lake Hodges can vary significantly from year to year. Prior to the completion of the Lake Hodges Project, the only water removed from the Lake Hodges was used to meet the water demands of the customers of San Dieguito Water District and Santa Fe Irrigation District. In years when rainfall within the region was very heavy (1993, 1995, 1998, 2005, 2011), water would spill over the dam after Lake Hodges had reached its capacity (approximately 30,000 acre-feet). By using the Lake Hodges Project infrastructure to transfer water out of Lake Hodges during large rainfall events, the yield of the lake can be maximized. The water transferred out of the lake can then be sold to other water agencies or stored in another agency's reservoir.

San Dieguito Water District and Santa Fe Irrigation District staff are currently negotiating a Lake Hodges Water Sales Agreement with the San Diego County Water Authority. Once completed, staff will contact other water agencies to see if there is interest in purchasing Lake Hodges water. Finally, staff will work with agencies that have large storage reservoirs to develop an agreement that would allow San Dieguito Water District and/or Santa Fe Irrigation District to store excess water in their reservoir.

2.2.2 Maximize the Use of Recycled Water

There are still some opportunities to convert existing potable water customers to recycled water. The District is currently working with the San Elijo Joint Powers Authority on a recycled water main extension that will allow the Encinitas Ranch HOA to convert their common area landscaping to recycled water. The project, which is projected to be complete in mid-2017, will utilize approximately 50 acre-feet of recycled water per year.

The District has several other existing potable water sites located adjacent to recycled water mains that are good candidates for conversion to recycled water. These customers include the following:

Customer	Potential Recycled Water Use (acre-feet/year)
Dramm & Echter Greenhouse	55
North Coast Business Park	14
Silverado Senior Living	10
Quail Park HOA	8
Cardiff Apartments	7
West Hampton Cove HOA	4

District staff is in contact with the owners of these sites and will work with them to assist in the recycled water conversion process.

2.2.3 Explore Opportunities for Alternative Water Supplies

District staff seek to explore opportunities for alternative water supply projects that are economically viable. The project that is currently under consideration is a potable reuse project in partnership with the SFID and SEJPA. A Potable Reuse Feasibility Study (Study) has been prepared by Trussell Technologies Inc., a leading expert in potable reuse. The Study consists of three technical memorandums summarized below.

TM 1 – Status of Potable Reuse Projects

TM 1 provides a summary of existing potable reuse projects in California, the evolution of the Division of Drinking Water's regulations governing potable reuse, and the timeline for the development of new regulations for surface water augmentation, as well as the feasibility of direct potable reuse.

TM 2 – Ultimate Potable Reuse Project

TM 2 provides a description of an ultimate potable reuse project that could deliver approximately 4,480 acre-feet (AF) per year of advance treated water from the San Elijo Water Reclamation Facility (SEWRF) to the San Dieguito Reservoir (SDR) by the end of 2025 for an estimated cost of $1,520 per AF. The ultimate project does not meet the draft regulatory criteria for a surface water augmentation project and may require an alternate permitting process. This ultimate project is building on the concept developed for the City of San Diego's pursuit of a project to augment Miramar Lake and provides the greatest volume of water at the lowest cost, but also faces the most significant challenges.

TM 3 – Near-Term Potable Reuse Project

TM 3 provides a description of a short-term potable reuse project that could be developed to deliver approximately 1,200 AF per year of advance treated water from the SEWRF to the SDR within the next six years for an expected cost of $1,890 per AF. This project will conform to the existing draft criteria for surface water augmentation regulations.

Study Conclusions

The primary conclusion of the feasibility study is that a potable reuse project utilizing surface water augmentation could be permitted with the Division of Drinking Water. A near-term project could produce enough drought-proof water to satisfy approximately 9% of the District's potable water demands, while the ultimate project could satisfy approximately 35% of the District's demands. The cost of potable reuse water is estimated to range between $1,500 and $2,000 per acre-foot. Should grant funding be received for this project, the cost per acre-foot would be lower. To give some perspective on these costs, the cost of imported treated water is currently $1,165 per acre-foot, and the cost of water from the Carlsbad Desalination Plant is approximately $2,300 per acre-foot. Recycled water costs $1,356 per acre-foot, but its use is highly restricted.

The study identifies some significant challenges associated with developing a potable reuse project. Those challenges include:

- **Utility size, coordination, and governance:** establish a governance structure between SFID, SDWD, and SEJPA for this project – a regulatory requirement for permitting authorities is that the participating parties have the *Technical, Managerial, and Financial* resources dedicated to ensure success.
- **Wastewater supply**: additional wastewater flows need to be identified to provide adequate source water to meet the ultimate project potable reuse goals.
- **Replacing recycled water commitments**: replacement sources for the existing non-potable recycled water customers need to be identified, given that all of the flow from SEWRF would be allocated for the Advanced Water Purification Facility (AWPF).
- **Source control**: expanding wastewater flows into SEWRF will require additional evaluation of source control and industrial pre-treatment programs.
- **Improvements to SEWRF**: modifications to the SEWRF are needed prior to the implementation of the AWPF and will likely be important drivers for schedule.
- **Reservoir modeling**: modeling of the SDR is required to demonstrate the hydraulics and to quantify dilution and mixing within the reservoir.
- **Modification of San Dieguito Reservoir operation**: To maximize the benefit of SDR for potable reuse, modifications of the current reservoir operation will be needed. The draft Surface Water Augmentation regulations focus on two main functions of the reservoir: dilution and retention time. Providing adequate mixing of the AWPF water in the reservoir will be critical to achieve sufficient dilution within the reservoir and ensure the treatability of the water in Badger Water Filtration Plant (WFP). The retention time of purified water in the reservoir can be maximized by (1) reducing other influent flow sources and (2) increasing the reservoir capacity. Currently, SDR is used for pre-treatment of Lake Hodges water prior to Badger WFP. Improvements at Lake Hodges that eliminate the need for pre-treatment at SDR would increase the available retention time for AWPF water and offer significant advantages for the reservoir augmentation project. Dredging would also increase SDR capacity and increase the retention time for potable reuse.

The next step in the development of this project will be the formation of a Project Management Team (PMT). The PMT will consist of SDWD, SFID, and SEJPA staff along with engineering, finance/grant, operations, public outreach, and water resource consultants that have experience in potable reuse and/or water supply development projects and will oversee the following:

- the regulatory permitting process
- the necessary studies to support environmental reporting and project development
- development of preliminary design documentation
- public outreach activities
- identification of funding sources
- assistance in the development of a governance structure for a joint potable reuse project

2.2.4 Support the San Diego County Water Authority's Efforts to Diversify its Water Supply Portfolio

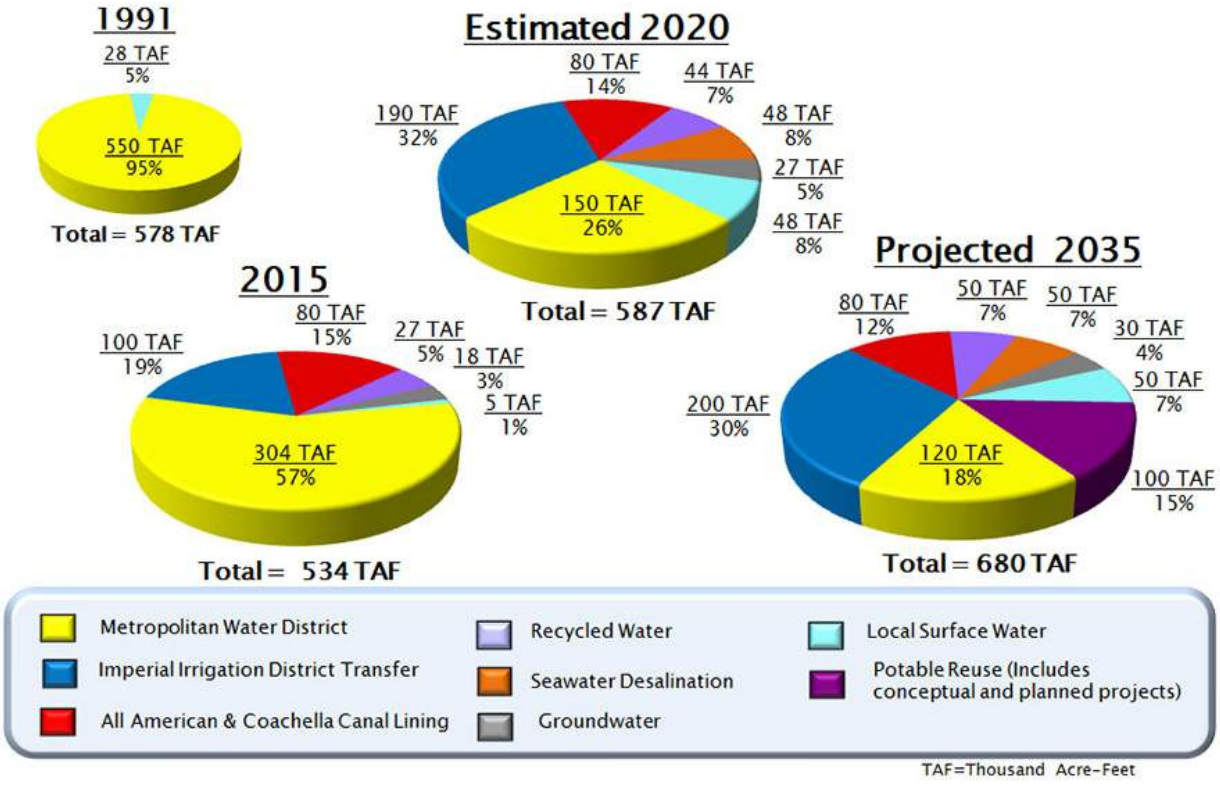
The District will most likely always rely on some imported water to meet a portion of its water demands. Therefore, it is important that the District support SDCWA's efforts to increase San Diego County's water supply reliability through supply diversification.

In 1991, the San Diego region was 95% reliant on a single supplier of water – the Metropolitan Water District of Southern California (MWD). This made the region extremely vulnerable to water supply shortages. That year, an ongoing drought forced MWD to cut deliveries to SDCWA by 31%. As a result of that crisis, the SDCWA Board of Directors approved a strategy to aggressively diversify the region's water supply portfolio by developing new local and imported water supplies.

SDCWA, working with its 24 member agencies, is developing local resources such as groundwater, recycled water, seawater desalination, and conservation. SDCWA has also secured new imported water supplies through a conservation-and-transfer agreement with the Imperial Irrigation District. The deal will provide 200,000 acre-feet of highly reliable Colorado River water annually by 2021. In addition, SDCWA has a separate agreement to receive Colorado River water by lining sections of the Coachella and All-American canals. These projects provide 80,000 acre-feet of water to the region annually.

The efforts made to enhance the region's water supply portfolio have paid off. As shown in the table below, in 2015, SDCWA had reduced its reliance on MWD supplies to 57%. By 2020, SDCWA anticipates reducing its reliance on MWD supplies to 26%. By 2035, it is estimated that this number will be further reduced to 18%.

San Diego County's Water Supply Portfolio



Section 3
Conclusion

The District is in a very favorable position with regard to water sustainability. Due to a robust water conservation program, the implementation of the recycled water program, and a customer base that is very conservation oriented, the District's current potable water demands are about the same as they were 40 years ago. Considering the fact that the District's population has increased by almost 50% over those 40 years, having the same potable water demands is a significant achievement.

With regard to water supply, having rights to Lake Hodges, a local water source, means that the District is less reliant on imported water than most agencies in San Diego County. District staff continue to explore opportunities to further reduce reliance on imported water. Staff is currently developing sales and/or storage agreements for Lake Hodges water in ~~or~~ order to increase the yield of this local source. Staff is working on converting certain sites using potable water for irrigation to recycled water in an effort to maximize the use of this drought-proof source. Finally, the results of the Potable Reuse Feasibility Study show that there is a potentially viable potable reuse project that could provide a new drought-proof, local water supply to the District.

While the District may be able to minimize the need to utilize imported water, it will most likely need to use some imported water to meet the water demands in the future. So SDCWA's efforts to enhance imported water supply reliability through water supply diversification also improve the District's water sustainability.

A good measure of the sustainability of an agency's water supply is its ability to meet customer demands during a drought. During the current drought, which is now entering its fifth year, SDCWA has stated that it can meet 99% of the District's normal water demands. Being able to ~~basically~~ meet normal demands during a historic drought indicates that the efforts to boost water sustainability, at both the local and regional level, have been and will continue to be successful.

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Appendix J: District Water Shortage Contingency Plan

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Article 30 Water Supply Shortage Response Program

This Water Supply Shortage Response Program serves as the San Dieguito Water District's (District) Water Shortage Contingency Plan (WSCP).

CWC 10632

> *(a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan…*
>
> *(c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city of county with which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.*

The Urban Water Management Planning Act (UWMP Act), enacted in 1983, requires water suppliers to conduct shortage contingency planning analyses that outline specific actions a supplier will take in response to short-term water supply shortages caused by droughts and/or catastrophic supply interruptions. Droughts have increased in frequency and severity throughout Southern California over the past few decades, triggering the District to implement water conservation measures to achieve demand reductions in order to meet available supplies. The District has experienced three droughts over the past few decades – one in the 1990s, one in the late 2000s, and the most recent one that occurred between 2014 and 2017 – where supply deficiencies were significant enough to necessitate mandatory water use restrictions. In the 1990s, a statewide drought halted operation of the State Water Project (SWP) and, simultaneously, a local drought significantly reduced flows into Lake Hodges. At that time, SDCWA informed its member agencies that a mandatory 20% reduction in demand was needed.

Between 2007 – 2011, mandatory water use restrictions implemented in response to another statewide drought, combined with litigation that impacted operation of the SWP in the Bay-Delta, substantially reduced pumping volumes from the SWP. In April 2007, MWD notified its member agencies (including the SDCWA) that it expected to face challenges in meeting demands due to insufficient imported water supplies from the SWP and the Colorado River Aqueduct (CWA). MWD, the SDCWA, and the District all adopted voluntary and mandatory water use restrictions as dry conditions persisted into 2009. In April 2009, MWD's Board of Directors voted to allocate urban water deliveries to its member agencies in FY 2010 for the first time in decades. In turn, the SDCWA allocated water deliveries to its member agencies. The SDCWA's long-term strategy to improve water supply reliability by diversifying the region's water supply portfolio helped offset some of the required cutbacks from MWD. Residences and businesses responded to the call for conservation and urban water use dropped throughout San Diego County. Although hydrologic conditions began to improve in 2010, storage reserves remained low, and allocations continued into FY 2011 to help restore storage reserves and prepare for a potential dry water year.

In response to the most recent severe drought that occurred between 2012 and 2017, water suppliers implemented the strictest water use restrictions to date through activation of drought response levels. Drought response levels are enacted to reduce a supplier's total urban water use through encouragement and enforcement of several voluntary and mandatory shortage response actions to achieve a specified reduction. The District defines and activates its drought response levels in accordance with drought response levels defined and activated by the SDCWA. The SDCWA's Water Shortage and Drought Response Plan defines its drought response levels, which can be activated by its Board of Directors as needed to reduce water use in response to drought

conditions. Upon being activated, the Board of Directors will set forth a drought level for the SDCWA, and the SDCWA will encourage its member agencies to adopt similar drought levels. The District has responded to drought conditions by adopting a drought management plan, implementing mandatory and voluntary water use restrictions, and implementing new water conservation programs. The District's drought management plan is currently incorporated in the District's Administrative Code as Article 29 (Water Supply Shortage Response Program) and will be updated and replaced by Article 30. This Water Supply Shortage Response Program, also known as the District's Water Shortage Contingency Plan (WSCP), establishes regulations on water management by the District and progressive restrictions on water use to be implemented for responding to water supply limitations resulting from declared water shortages or declared water shortage emergencies.

In April 2015, the Governor of California issued an executive order declaring a State of Emergency requiring the California State Water Resources Control Board (State Board) to implement regulations and restrictions to achieve a 25% reduction in potable water use statewide, though individual agencies were required to achieve varying reductions based on existing per capita water use. To address this executive order, the State Board then amended its emergency drought regulations requiring the District to reduce its water use by 28% compared to its 2013 water use. In response to these state actions, the District revised its Water Supply Shortage Response Program (Article 29) in April 2015 to enforce a water allocation program to reduce the District's overall water use to meet the State requirements. Additional revisions included water waste prohibitions and the establishment of penalties for violation of implemented water allocations during Level 3 and Level 4 drought conditions.

In response to the drought, the District activated Water Shortage Response Level 2 in June 2014 and increased to a Water Shortage Response Level 3 in May 2015, increasing water use restrictions and prohibitions. The District began to relax water use restrictions as supplies began to recover and drought conditions improved. In April 2016, the District went from a Water Shortage Response Level 3 to a Level 2. Three months later, in July 2016, the District further relaxed water use restrictions and declared a Level 1 Shortage, which encourages but does not mandate water use restrictions. In April 2017, the Governor of California issued an executive order lifting the drought emergency water restrictions in San Diego County and the District followed by ending its Level 1 restrictions.

The District will update its Water Supply Shortage Response Program (Article 29 to new Article 30) again in May 2021 to comply with new 2018 legislation that was adopted in response to the recent severe drought. Pursuant to the 2018 legislation, water suppliers must address several new requirements with prescriptive elements in their water shortage contingency plans, including, but not limited to:

- Describe key attributes of and procedures for conducting an annual water supply reliability assessment;
- Update to six standard water shortage response levels (progressive ranges of 10%, 20%, 30%, 40%, 50%, and greater than 50% shortage);
- Quantify estimated water savings associated with each shortage response action;
- Describe communication protocols and public outreach measures;

- Identify monitoring and reporting procedures to track compliance; and
- Discuss methods to reevaluate and improve the water shortage contingency plan.

This WSCP contains a detailed discussion of the water shortage contingency planning undertaken by the District to prepare for, and implement during, a drought or another catastrophic interruption of water supplies. The WSCP also describes the District's annual water supply reliability assessment procedures and addresses the District's mandatory prohibitions and penalties associated with excess water use.

CWC 10644(a)(2)

> *The plan, or amendments to the plan, submitted to the department… shall include any standardized forms, tables, or displays specified by the department.*

It should be noted that DWR requires water suppliers to use their standardized submittal tables within this WSCP. Some of the tables provided in this WSCP have titles that are designated by DWR to ensure compliance with Water Code section 10644(a)(2).

30.1 Water Supply Reliability Analysis

CWC 10632(a)(1)

The analysis of water supply reliability conducted pursuant to Section 10635.

The District conducted a water supply reliability analysis in its 2020 Urban Water Management Plan for three scenarios for the planning period of 2025 – 2045. The scenarios evaluated included a normal year, a single dry-year, and five consecutive dry years (multiple dry-year scenario). Because the District relies on the San Diego County Water Authority (SDCWA) to meet demands that cannot be met using local supplies (e.g., Lake Hodges, non-potable recycled water), the District's reliability analysis as described in its 2020 UWMP tiers off of SDCWA's reliability analysis included in the *San Diego County Water Authority 2020 Urban Water Management Plan*.

SDCWA's modeling found that demands across the region are projected to increase between 7% and 9% over normal year conditions in the single dry-year and multiple dry-year scenarios evaluated for 2025-2045. The District's reliability analysis assumes that changes in regional demand stemming from dry conditions would be experienced at similar rates at the local level because dry conditions would generally be experienced across the entire region. Supply availability during dry conditions varies depending on the type of supply being considered. In SDCWA's analysis, groundwater and recycled water supplies are considered reliable under all scenarios, while availability of surface water supplies, including the District's Lake Hodges, would decrease in the single and multiple dry-year scenarios. As demand increases under dry conditions and local supply availability decreases, member agency purchases from SDCWA would increase. SDCWA's analysis found that there would be sufficient supplies available through local and imported sources, or from storage, to meet demands across all of its member agencies in all years of each scenario. As such, the District anticipates 100% reliability under all scenarios as evaluated in the 2020 UWMP.

In addition to the water supply reliability analysis that considered normal, single dry-year, and multiple dry-year scenarios over the 2025-2045 planning period, the District's 2020 UWMP included a Drought Risk Assessment (DRA) for the next five years (2021-2025). As with the supply reliability analysis, the District tiered off of SDCWA's DRA (included in *San Diego County*

Water Authority 2020 Urban Water Management Plan), because the District would increase purchases from SDCWA to meet local demands that cannot be met with Lake Hodges or recycled water. The DRA analysis projected demand increases between 8% and 25% over 2020 demands, based on the five driest consecutive years on record, which were 2014-2018.

30.2 Annual Water Supply and Demand Assessment Procedures

CWC 10632.1

> *An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.*

CWC 10632(a)(2)

> *The procedures used in conducting an annual water supply and demand assessment that include, at minimum, both of the following:*
>
> *(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.*
>
> *(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's reliability for the current year and one dry year, including all of the following:*
>
> *(B)(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.*
>
> *(B)(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.*
>
> *(B)(iii) Existing infrastructure capabilities and plausible constraints.*
>
> *(B)(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.*
>
> *(B)(v) A description and quantification of each source of water supply.*

Beginning in 2022, pursuant to the new requirements discussed in CWC 10632.1, water suppliers will be required to submit a water supply and demand assessment report (Annual Assessment) to DWR on or before July 1st of each year. The Annual Assessment will be used to evaluate short-term water supply reliability for the upcoming fiscal year and will discuss the District's existing and projected water supply sources (including imported water from SDCWA), unconstrained customer demand, planned water use for the current year assuming that the following year will be dry, infrastructure capabilities and constraints, and any other local factors that may influence or disrupt water supplies. Because the District purchases water from the SDCWA, the Annual Assessment will be conducted in coordination with the SDCWA's annual assessment. As described in SDCWA's *San Diego County Water Authority 2020 Urban Water Management Plan*, SDCWA's annual assessment will consider municipal and industrial supplies and projected demands, which includes a wide range of uses, including residential demand as well as commercial, industrial, and institutional use. SDCWA's short-term forecast model considers

historic water demand patterns, weather, local economic index, and anticipated conservation levels, as well as member agency local supplies that may be affected by weather or other factors.

The District will perform its water supply and demand assessment annually in spring each year to assess short-term reliability for the upcoming fiscal year. Results of the annual analysis will be discussed in a report and presented to the District's Board in June. If the analysis projects a supply deficit, the Board will vote to determine the appropriate shortage response level and associated actions necessary to reduce demand to ensure adequate supply. Because the District will coordinate its Annual Assessment with SDCWA's annual assessment, the timeline for conducting the District's Annual Assessment is based on the SDCWA's timeline. The District's timeline for developing its Annual Assessment is presented in **Table 30-1**.

Table 30-1: Annual Assessment Process and Timeline

Time Frame	Step	Action
March - April	1(a)	District estimates available local supplies.
	1(b)	District coordinates with SDCWA to gather necessary information for SDCWA to conduct its wholesaler assessment.
April - May	2(a)	SDCWA announces member agency allocation determination for current year.
	2(b)	SDCWA determines carryover (and emergency storage apportionments if under emergency).
	2(c)	District conducts its Annual Assessment:
	(i)	District determines total available supply – inclusive of imported water supply.
	(ii)	District determines infrastructure constraints (including water quality conditions limiting local sources).
	(iii)	District determines expected demand for current year and one subsequent dry year, anticipated to be based on regional projections from SDCWA.
	(iv)	District compares supply and demand and makes a determination of the water supply reliability.
June	3(a)	District Board of Directors (Encinitas City Council) reviews and approves Annual Assessment determination.
	3(b)	District coordinates with SDCWA on submittal of the report. Annual Assessment report to be submitted to the state by July 1.
NOTES: The process outlined above is provided as a guideline and may be modified based on conditions present during the evaluation period.		

30.3 Six Standard Water Shortage Levels and Shortage Response Actions

CWC 10632(a)

> *Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:*
>
> *(3)(A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.*
>
> *(3)(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.*

The District's WSCP is currently incorporated into its Water Supply Shortage Response Program (Article 29) and will be replaced with this WSCP (Article 30) to comply with state regulations. The WSCP is designed to establish priorities and restrictions during various types of water shortages, including 10% to greater than 50% reductions in water supply. The WSCP specifies watering restrictions for outdoor irrigation (including golf course, park, school, agriculture, and commercial uses), mobile equipment washing, pool refilling, over-irrigation, and hardscape maintenance.

The District's WSCP establishes levels of water supply shortage response actions to be implemented in times of anticipated shortages. As discussed in the preceding section, the District sets its drought response levels in accordance with drought response levels determined by the SDCWA and defined in SDCWA's Water Shortage and Drought Response Plan. The District has developed this WSCP to update its shortage response levels from four to six stages of action to align its plan with the SDCWA's levels and to comply with CWC 10632(a)(3)(A). The District will recommend that the District Board adopt this Plan in May 2021.

Upon activation of SDCWA's drought response levels, its Board of Directors will set forth a drought level, and the SDCWA will encourage its member agencies to adopt similar drought levels. The District's six stages of actions (Levels 1 – 6), as shown in **Table 30-2**, are a sequential, regulatory program of increasingly stringent water use restrictions. When the District declares that a particular shortage level is in effect, District customers must comply with all regulations contained in the declared stage or face a potential penalty.

Table 30-2: Water Shortage Contingency Plan Stages

DWR Table 8-1: Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Water Shortage Condition
1	Up to 10%	Includes voluntary water shortage actions to achieve demand reductions, such as water before 10 a.m. and after 6 p.m. for residential, commercial, and nursery/commercial growers.
2	Up to 20%	Mandates the voluntary actions included under Level 1 and includes additional measures focused on reducing outdoor water use such as limiting landscape irrigation for residential and commercial properties to 3 assigned days per week and imposing time limits for lawn watering with sprinklers.
3	Up to 30%	Includes mandatory Level 1 and 2 actions and additional actions focused on reducing outdoor water use such as stop operating ornamental fountains unless recycled water is used and further limiting the number of assigned days per week for residential and commercial landscape irrigation to 2 days (one day per week November through May). The District will also suspend new potable water services and new temporary and permanent meters unless the District provides a program to offset new water demands equal to the new use. The District may also establish a water allocation policy for properties served and suspend considerations of annexations to its service area.
4	Up to 40%	Includes mandatory Level 1, 2, and 3 actions and additional water shortage actions such as preventing filling/refilling of ornamental lakes or ponds (except to sustain aquatic life).
5	Up to 50%	Includes mandatory Level 1, 2, 3, and 4 actions and additional actions focused on reducing outdoor water use such as prohibiting all landscape irrigation (with exceptions for commercial growers, nurseries, and other listed uses).
6	>50%	Includes mandatory Level 1, 2, 3, 4, and 5 actions and additional actions focused on reducing outdoor water use such as expanding prohibitions on all landscape irrigation by removing several exclusions permitted under Level 5.

The District will compare its projected local and imported water supplies against its projected water demands. If the District's water supply and demand assessment anticipates that available supplies will be less than projected demands, it will then determine the percentage reduction in demands that is required to offset water supply shortages. The District will trigger the appropriate shortage response stage to achieve the required demand reductions, in conjunction with the SDCWA and MWD.

The demand reduction actions associated with each of the District's six shortage levels are described in more detail in **Section 30.2.1**.

30.2.1 Shortage Response Actions

CWC 10632(a)(4)

Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

CWC 10632(b)

For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

Health and Safety Code Section 115921

As used in this article the following terms have the following meanings:

(a) "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.

Voluntary or mandatory water use restrictions and prohibitions to be implemented for each stage are discussed below and listed in **Table 30-3**.

Water Shortage Response Level 1 (10% Reduction)

Level 1 may apply when there is a reasonable probability that there will be water supply shortages and that a consumer demand reduction of up to 10% is required. At this stage restrictions are voluntary, and the District would increase its public education and outreach efforts to encourage customers to take actions to conserve water. A Level 1 condition is declared by the General Manager upon a written determination of the existence of the facts and circumstances supporting the determination. Some voluntary measures under Level 1 include stop hosing down paved surfaces, stop runoff from landscape irrigation, wash vehicles with a hand-held hose/shut-off nozzle or at a commercial site with recirculated water, provide restaurant water refills and hotel laundering only upon request, use non-potable water for construction purposes when available, and repair all leaks within five (5) days of notification. At this stage, residential and commercial customers and nursery and commercial growers are encouraged to water before 10 a.m. and after 6 p.m. It is also encouraged that recirculated water is used to operate ornamental fountains. Landscape irrigation restrictions do not apply to micro-irrigation systems such as drip irrigation.

Water Shortage Response Level 2 (20% Reduction)

Level 2 may apply when a consumer demand reduction of up to 20% is necessary. At this stage, all of the voluntary water use reduction measures in Level 1 become mandatory and additional mandatory water use restrictions are implemented. During a Level 2 condition, customers are also required to repair all leaks within 72 hours of notification, stop operating ornamental fountains or similar decorative water features unless re-circulated or recycled water is used, limit residential and commercial landscape irrigation to three (3) assigned days per week , and limit lawn watering to no more than 10 minutes per water station per assigned day. Landscape irrigation restrictions

do not apply to micro-irrigation systems such as drip irrigation. The Level 2 condition shall be declared by the District's Board of Directors (Encinitas City Council).

Under Level 2 conditions, The District may also implement drought rates at Level 2 and above.

Water Shortage Response Level 3 (30% Reduction)

Level 3 represents an increased shortage up to 30% due to drought or other supply reductions. At this stage, Level 1 and Level 2 restrictions apply and additional mandatory prohibitions are established. Additional mandatory actions established under Level 3 restrictions include further limiting residential and commercial landscape irrigation to two (2) assigned days per week (no more than once per week November through May), requiring leak repair within 48 hours of notification, stopping operation of ornamental fountains or similar decorative water features unless recycled water is used, and stopping all vehicle washing except at commercial car washes that recirculate water or by high pressure/low volume wash systems. Landscape irrigation restrictions do not apply to micro-irrigation systems such as drip irrigation. At Level 3 and above, the District may establish a water allocation for any property served by the District and will suspend considerations of annexations to its service area. The District will also begin to implement water waste monitoring and may assess penalties and fines for violations. Restrictions and prohibitions against specific water use practices associated with each level, and penalties for violation, are discussed in **Section 30.6**.

Water Shortage Response Level 4 (40% Reduction)

Level 4 is implemented when a consumer demand reduction of up to 40% is necessary. At this stage, Level 1 through Level 3 restrictions apply and additional mandatory prohibitions are established. Additional mandatory actions established under Level 4 restrictions include stopping filling or refilling of ornamental lakes and ponds (except to the extent needed to sustain aquatic life). Landscape irrigation restrictions do not apply to micro-irrigation systems such as drip irrigation. At Level 4 and above, the District will suspend new potable water services and new temporary or permanent meters within the District's service area unless the District establishes a program to offset the new potable water demands. The District will also begin to implement water waste enforcement and will assess penalties and fines for violation starting at Level 4.

Water Shortage Response Level 5 (50% Reduction)

Level 5 is implemented when a consumer demand reduction of up to 50% is necessary. At this stage, Level 1 through Level 4 restrictions apply and additional mandatory prohibitions are established. Additional mandatory actions established under Level 5 restrictions include stopping all landscape irrigation with the exception of crops and landscape products of commercial growers and nurseries and other listed exceptions (trees and shrubs watered by bucket / hand-held hose / positive shut-off nozzle / low-volume non-spray irrigation, fire protection, erosion control, rare or essential plant materials, public parks / day care centers / school grounds / cemeteries / golf course greens not exceeding (2) days per week, livestock water, public works projects, and actively irrigated environmental mitigation projects) and requiring leak repair within 24 hours of notification. Landscape irrigation restrictions do not apply to micro-irrigation systems such as drip irrigation.

Water Shortage Response Level 6 (Greater Than 50% Reduction)

Level 6 is implemented when a consumer demand reduction of greater than 50% is necessary. At this stage, Level 1 through Level 5 restrictions apply and additional mandatory prohibitions are established. Additional mandatory actions established under Level 6 restrictions include further limiting the exceptions to the Level 5 landscape irrigation prohibitions to only include crops and landscape products of commercial growers and nurseries and other listed exceptions (fire protection, erosion control, rare or essential plant materials, livestock water, public works projects, and actively irrigated environmental mitigation projects). Landscape irrigation restrictions do not apply to micro-irrigation systems such as drip irrigation.

Table 30-3: Shortage Response Actions by Stage

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for washing hard surfaces	1%		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0.1%		No
1	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Wash vehicles with hand-held hose / shut-off nozzle and bucket or at a commercial site with recirculating water	No
1	Landscape - Limit landscape irrigation to specific times	3%	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Nursery and commercial growers irrigate before 10 a.m. and after 6 p.m. only.	No
1	Other	1%	Vehicles must be washed using a bucket, hand-held hose with positive shut-off nozzle, or at a commercial site that recirculated water.	No
1	CII - Restaurants may only serve water upon request	0.1%		No
1	CII - Lodging establishment must offer opt out of linen service	0.1%		No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	Repair all leaks within 5 days of detection or notification by the District	No
1	Other - Prohibit use of potable water for construction and dust control	< 0.1%	When recycled/non-potable water is available	No
1	Other	Variable	Comply with any mandatory regulations established by any State agency governing the use of water	No

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
1	Water Features - Restrict water use for decorative water features, such as fountains	1%	Use re-circulated water or recycled water to operate ornamental fountains.	No
1	Expand public information campaign	1%		No
1	Implement or modify drought rate structure or surcharge	2%	May implement drought rate structure	No
2	Other - Prohibit use of potable water for washing hard surfaces	1%		Yes
2	Landscape - Restrict or prohibit runoff from landscape irrigation	0.1%		Yes
2	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Wash vehicles with hand-held hose / shut-off nozzle and bucket or at a commercial site with recirculating water	Yes
2	Landscape - Limit landscape irrigation to specific times	3%	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Nursery and commercial growers irrigate before 10 a.m. and after 6 p.m. only.	Yes
2	Other	1%	Vehicles must be washed using a bucket, hand-held hose with positive shut-off nozzle, or at a commercial site that recirculated water.	Yes
2	CII - Restaurants may only serve water upon request	0.1%		Yes
2	CII - Lodging establishment must offer opt out of linen service	0.1%		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	Repair all leaks within 72 hours of detection or notification by the District	Yes
2	Other - Prohibit use of potable water for construction and dust control	< 0.1%	When recycled/non-potable water is available	Yes
2	Other	Variable	Comply with any mandatory regulations established by any State agency governing the use of water	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop operation unless re-circulated or recycled water is used.	Yes
2	Expand public information campaign	5%		Yes
2	Implement or modify drought rate structure or surcharge	2%	May implement drought rate structure	Yes
2	Landscape - Limit landscape irrigation to specific days	8%	No more than 3 assigned days per week	Yes

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
2	Landscape - Other landscape restriction or prohibition	3%	Limit watering using sprinklers to no more than 10 minutes per watering station per assigned day.	Yes
3	Landscape - Limit landscape irrigation to specific days	18%	No more than 2 assigned days per week (no more than once per week November to May)	Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	2%	Repair all leaks within 48 hours of detection or notification by the District.	Yes
3	Other	Variable	Suspend considerations of annexations to the service area.	Yes
3	Other	Variable	May establish a water allocation policy	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop operation unless recycled water is used.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems	Yes
4	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop filling or refilling ornamental lakes or ponds, except to the extent needed to sustain aquatic life.	Yes
4	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspend new potable water services and new temporary and permanent meters unless the District provides a program to offset new potable water demands.	Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	4%	Repair all leaks within 24 hours of detection or notification by the District	Yes
5	Landscape - Prohibit all landscape irrigation	26%	With the exception of crops and landscape products of commercial growers and nurseries and other noted exceptions (trees and shrubs watered by bucket / hand-held hose / positive shut-off nozzle / low-volume non-spray irrigation, fire protection, erosion control, rare or essential plant materials, public parks / day care centers / school grounds / cemeteries / golf course greens not exceeding (2) days per week, livestock water, public works projects, and actively irrigated environmental mitigation projects).	Yes
6	Landscape - Prohibit all landscape irrigation	30%	With the exception of crops and landscape products of commercial growers and nurseries and other noted exceptions (fire protection,	Yes

DWR Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
			erosion control, rare or essential plant materials, livestock water, public works projects, and actively irrigated environmental mitigation projects	
6	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspend new potable water services and new temporary and permanent meters.	Yes
NOTES: Mandatory water shortage restrictions enforced in previous stages also apply to the current stage unless the current stage includes an equivalent action to reflect stricter measures, in which case the stricter measure would apply.				

30.4 Water Shortage Emergency Response

The District has taken significant steps to ensure it is prepared for catastrophic water supply interruption, including implementing local measures to increase supply reliability, developing planning documents that outline contingency actions, and coordinating with the SDCWA and other member agencies.

Local Supply Reliability Measures

In addition to water demand reductions that would be implemented during a catastrophic supply interruption, the District maintains partial ownership of the Badger Plant and access to substantial raw water reserves. The District also has access to potable water SDCWA connection and numerous emergency interconnections with OMWD. The District installed an additional emergency interconnection with OWMD at Manchester Avenue in 2013 to ensure sufficient water for fire protection and to add redundancy to the District's water system. Construction of a parallel 54-inch transmission supply pipeline from the R.E. Badger Filtration Plant to SDWD's water system also increased reliability and redundancy of the District's supplies.

Three active water reservoirs utilized for storage of water supplies are located within the District, two of which the District has full ownership of (Balour Reservoir and the Encinitas Ranch Reservoir). The District shares ownership of the Badger Clearwell and the Wanket Tank; however, the Wanket Tank is currently out of service.

The City of Encinitas has also adopted the National Incident Management System (NIMS), which establishes procedures and training programs for emergency response.

Emergency Response Plan

The District is currently updating its Emergency Response Plan pursuant to Section 2013(b) of the American Water Infrastructure Act (AWIA) of 2018, which requires that community water suppliers serving populations greater than 3,300 develop or update an Emergency Response Plan that incorporates the findings of their risk and resilience assessments. The District's Emergency Response Plan is expected to be completed by December 2021.

Emergency Storage Project and Supply Reliability

In order to provide sufficient emergency water storage to supply to its member agencies during an extended period, the SDCWA implemented the Emergency Storage Project (ESP) in 2014. The ESP is a system of reservoirs, pipelines, pump stations, and other conveyance facilities intended to improve San Diego's regional water storage capacity and allow stored emergency water to be delivered to SDCWA's member agencies within San Diego County during a prolonged regional interruption. The pipelines that carry imported water from MWD to San Diego cross several major fault lines on their way to San Diego County. Consequently, an earthquake, drought, or other disaster could interrupt San Diego County's imported water supply for up to six months. The ESP facilities can be used to help deliver emergency water supplies to member agencies during two- and six-month emergency events in which the region is either completely unable or only partially able to receive imported water deliveries due to a disaster that renders their transmission system inoperable. By providing interconnections within regional facilities, the ESP is designed to make water available to the San Diego region even during catastrophic conditions when there is an interruption in imported water deliveries.

The regional emergency water supply reservoirs (with their ESP capacity) are Olivenhain (18,000 AF), Lake Hodges (20,000 AF), and San Vicente (52,100 AF). The actual amount of ESP water to be delivered to a particular member agency during an emergency event will depend on many factors such as member agency demands, local supplies, infrastructure, availability of MWD supplies, and duration of emergency. The ESP was designed to provide a total of 90,100 AF of stored water to meet the region's emergency needs through at least 2030 and recent trends in regional water demand indicate this volume of emergency storage will serve the region beyond 2045. SDCWA's Board of Directors may also authorize that supplies from the ESP be used in a prolonged drought or other water shortage situations where imported and local supplies do not meet 75% of the SDCWA's member agencies urban demands.

As discussed in the District's 2020 UWMP (**Chapter 6 – Water Supply Reliability Assessment**), the SDCWA anticipates that it will have more than enough available supply to meet its own demands and the demands of its member agencies under a five-year multi-year drought scenario. Therefore, if the District anticipates that its available local surface water supply (Lake Hodges) will be less than projected, the District can augment supply and offset the anticipated deficit by purchasing more water from the SDCWA.

Seismic Risk Assessment and Mitigation Plan

CWC 10632.5

> *(a) In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.*
>
> *(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.*
>
> *(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.*

CWC 10632.5 requires an urban water supplier to include within its UWMP a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. Pursuant to CWC 10632.5(c), an urban water supplier may comply with this requirement by submitting a copy of the most recently adopted multi-hazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the multi-hazard mitigation plan addresses seismic risk.

Attachment A includes a copy of Section 4.3.4 of the Multi-Hazard Mitigation Plan for San Diego County (MHM Plan), which addresses seismic risk, as well as Section 5.8 of the MHM Plan which summarizes the potential hazards for the City of Encinitas and related goals, objectives, and actions. The MHM Plan was prepared with input from the Water Authority and under the federal Disaster Mitigation Act of 2000.

30.5 Communication Protocols

CWC 10632(a)(5)

> *Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:*
>
> *(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.*
>
> *(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.*
>
> *(C) Any other relevant communications.*

Upon a water shortage declaration action by the General Manager (Level 1), the District will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the voluntary water conservation practices. Upon a water shortage declaration action by the Board of Directors (Levels 2-6), the District will expand its public information campaign to notify the public of the mandatory water conservation measures. The District would need to provide notice of the water shortage rules and regulations to all residents and businesses within its service area in the City of Encinitas, in addition to its customers of record, through a variety of media and communications methods, such as print or internet.

Upon declaration of a Level 1 shortage, the General Manager may publish a notice of the determination in one or more newspapers, including a newspaper of general circulation within the District. Upon declaration of a Level 2-6 shortage or Water Shortage Emergency, the District shall coordinate with the City Manager of the City of Encinitas and shall publish a copy or summary of the resolution in a newspaper used for publication of official notices at least one time within five (5) days of the declaration. If the District establishes a water allocation under Water Shortage Response Levels 4-6, the District shall provide notice of the allocation by including it in the regular billing statement for water service fees or charges or by any other mailing to the address to which the SDWD customarily mails the billing statement for fees or charges for ongoing water service. Upon declaration of any water shortage condition level, the District may also post notice on its website.

If possible, the District should activate its public information campaign prior to a formal water shortage declaration to provide customers with advanced notice of impending water use restrictions. The District could continually update its webpage to notify residents of current and

planned shortage levels and modify and expand the webpage, as necessary. During the recent drought, the District utilized bill inserts to inform its customers of water shortage levels and the associated mandatory demand reduction actions. Other actions that suppliers may take to increase public outreach are contacting large water users and businesses that are most likely to be seriously affected directly in writing and/or providing public notifications for non-English speakers.

Because the District aligns its water shortage response levels with the SDCWA, public outreach and messaging campaigns conducted by SDCWA will also benefit the District as it triggers different levels.

30.6 Compliance and Enforcement

CWC 10632(a)(6)

> *For an urban water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.*

Any person who uses, causes, or permits the use of water in violation of the District's WSCP is guilty of an offense punishable as established by the provisions of Article 30. Each day that a violation of this ordinance occurs is counted as a separate offense. Violation of Article 30 may result in issuance of a warning notice, fines, restriction of service, and/or discontinuance of service. Administrative fines may be levied for each violation of a provision of this ordinance as shown in **Table 30-4**.

Violation of a provision of Article 30 is also subject to enforcement through installation of a flow-restricting device on the meter. Each willful violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than 30 days and/or a fine not exceeding $1,000, as authorized in CWC section 377. A willful and excessive violation of the mandatory conservation measures and water use restrictions as set forth in **Section 30.3** may result in a discontinuance of service.

Table 30-4: Penalties for Violation of Article 30

Violation	Penalty
First Violation	Warning (at sole discretion of General Manager)
Second Violation	$100 fine
Third Violation	$200 fine
Fourth Violation (and each additional violation)	$500 fine
NOTES: Within the current twelve-month period from the most recent violation.	

Customers can report any water waste observed within the District's service area by filling out and submitting the Water Waste Reporting Form , which can be found on the District's website (https://www.encinitasca.gov/Portals/0/City%20Documents/Documents/San%20Dieguito%20Water%20District/Drought/Water%20Waste%20Reporting%20Form.pdf). Customers can also report water waste using the District's telephone hotline by calling 760-633-2810.

30.7 Consumption Reduction Methods

In addition to water use restrictions and prohibitions, the District implements consumption reduction methods to reduce water demands within its service area. When a Level 1 condition is declared, the District will expand its public education and outreach efforts to increase public awareness of the need to implement water conservation practices. The District will continue to increase public outreach and engagement efforts as needed upon triggering progressive water shortage levels.

The District, in conjunction with local agencies and MWD, offers several ongoing rebate and incentive programs to help its customers reduce water use, which in turn help the District reach its targeted water use reductions. Actions taken by the District to reduce demands during each shortage stage are presented in **Table 30-5**. The District's consumption reduction methods, including rebate and incentive programs, are discussed in more detail in the District's UWMP.

Table 30-5: Supply Augmentation and Other Actions

DWR Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	Shortage Gap Reduction	Additional Explanation or Reference *(optional)*
All Levels	Increase Water Waste Patrols	5%	Water Waste Monitoring and/or Enforcement
All Levels	Expand Public Information Campaign	5%	
All Levels	Offer Water Use Surveys	Variable	
All Levels	Provide Rebates on Plumbing Fixtures and Devices	Variable	
All Levels	Provide Rebates for Landscape Irrigation Efficiency	Variable	
All Levels	Provide Rebates for Turf Replacement	Variable	
All Levels	Decrease Line Flushing	Variable	
All Levels	Reduce System Water Loss	< 1%	District's water losses are already very good compared to the water industry average (approximately 3% of total demand)
Level 2 – 6	Implement or Modify Drought Rate Structure or Surcharge	2%	May implement drought rates.
Levels 2 – 6	Other	5%	Customer billing inserts describing water shortage response actions.
Levels 3 – 6	Other	Variable	The District may establish a water allocation for any property it serves.
Levels 3 – 6	Other	Variable	The District may suspend consideration of annexations to its service area.
Levels 4 – 6	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspends new potable water services and new temporary and permanent meters unless the District provides a program to offset new potable water demands (this exception does not apply to Level 6).

30.8 Legal Authorities

CWC 10632(a)(7)

> *((A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.*
>
> *((B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1. [see below]*
>
> *((C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.*

Water Code Division 1, Section 350

> *Declaration of a water shortage emergency condition. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.*

The District has the legal authority to implement and enforce its water shortage contingency plan. California Constitution article X, section 2 and CWC section 100 provide that water must be put to beneficial use, the waste or unreasonable use or unreasonable method of use of water shall be prevented, and the conservation of water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare. In addition, CWC section 375 provides the District with the statutory authority to adopt and enforce water conservation restrictions, and CWC sections 350 et seq. authorize the District to declare a water shortage emergency and impose water conservation measures when it determines that the District may not be able to satisfy ordinary demands without depleting supplies to an insufficient level.

If necessary, the District shall declare a water shortage emergency in according with CWC Chapter 3 (commencing with section 350) of Division 1. Once having declared a water shortage, the Dis is provided with broad powers to implement and enforce regulations and restrictions for managing a water shortage. For example: CWC section 375(a) provides:

> Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.

(CWC section 375(a).) CWC section 375(b) grants the District with the authority to set prices to encourage water conservation.

Under California law, including CWC Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and article X, section 2 of the California Constitution, the District is authorized to implement the water shortage actions outlined in this WSCP. In water shortage

cases, shortage response actions to be implemented will be at the discretion of the District and will be based on an assessment of the supply shortage, customer response, and need for demand reductions as outlined in this WSCP.

It is noted that upon proclamation by the Governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the state will defer to implementation of locally adopted water shortage contingency plans to the extent practicable.

30.9 Monitoring and Reporting

CWC 10632(a)(9)

> *For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tacked, and analyzed for the purposes of monitoring customer compliance to meet state reporting requirements.*

The methods for determining actual water use reductions are implemented on an ongoing basis. All water received from the SDCWA is metered and monitored. Additionally, the District is fully metered. The meters measure and record the water used by each connection within its service area and keeps good records of the water meter readings. Water use from all customers can be retrieved from these historical water meter records. The District also regularly performs meter accuracy testing and meter replacement to ensure the accuracy of meter readings. When water use restrictions are in place, and specifically when water allocations have been implemented, the District closely monitors water use to ensure compliance with restrictions and to verify that customers are not exceeding their set allocations. Because the District collects water use data on a regularly scheduled basis as part of its customer billing process, it can calculate a baseline to compare to current water use during times of drought, which can then be used to estimate actual reductions in water use. If the trend in consumption is such that demand is greater than anticipated supply, the Board of Directors will be notified so that corrective action (such as increased publicity and enforcement or consideration of declaring the next higher stage) can be taken.

30.10 Refinement Procedures

CWC 10632(a)(10)

> *Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.*

The District's WSCP is a living document and will need to be responsive to the effectiveness of conservation measures in the midst of a water shortage. The District will analyze monthly monitoring data and convene the Board of Directors to determine if adaptive measures need to be taken to achieve the necessary shortage reduction levels. In the case that the water shortage response measures are not working as planned, the District will add new actions or refine current actions to achieve greater savings. Measures from a higher stage could be adopted into the current stage, such as requiring leak repairs within 24 hours for Stages 3 and 4 rather than 48 hours. When updates are needed, the District will coordinate with all appropriate City of Encinitas Departments to refine the plan and provide updated information and measures to the Board of Directors for approval.

30.11 Financial Consequences

CWC 10632(a)(8)

> *A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:*
>
> *(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*
>
> *(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*
>
> *(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.*

In the event of a water shortage emergency, the District's WSCP would be activated to respond to the applicable level of the shortage. With the activation of the District's drought policies, the drought response stage water conservation measures would go into effect and the District would be operating with reduced water sales. The amount of decreased water sales would depend on the drought response stage under which the District would be operating.

With the implementation of the water conservation measures associated with the drought response levels, the District may incur additional expenses. Some of these additional expenditures may come from increased staffing, increased staff time needed to implement measures, or increased costs of new supplies, transfers, or exchanges (by either the District or the SDCWA). Increased expenses may be recovered by implementing demand reduction rates (drought rates), volumetric penalties, and civil penalties. When allocations are implemented, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the District's existing customers class commodity rate if under 115% of the allocation and four times the District's existing customers class commodity rate if over 115% in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of Article 30, as discussed in **Section 30.6**. Additionally, the District may use reserve funds or defer non-critical maintenance or projects to help reduce expenses in the face of reduced water sales during a water shortage emergency or to reallocate staff efforts to support drought response actions.

The price of water is increasing, both as a commodity and with an overall decrease in available supplies. If necessary, the District's water rates would be adjusted in response to the increasing cost of water. Adjustments to the District's rate structure may offset potential losses in revenue due to reduced sales. The District is currently in the process of conducting a rate study in accordance with Proposition 218 and plans to coordinate this rate study with any rate adjustments associated with this ordinance.

30.12 Special Water Feature Distinction

CWC 10632(b)

For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

The District uses the term “ornamental” when referring to water features that are artificially supplied with water and are not swimming pools or spas (e.g., ornamental fountains, ornamental pond, ornamental like), as well as the term “decorative water feature”. Table 30-3 specifies shortage response actions that are applicable to these ornamental water features, distinct from pools or spas. Water shortage response actions also distinguish between ornamental water features and artificial water features that support aquatic life or livestock in the action itself.

Appendix A: Excerpts from the Multi-Hazard Mitigation Plan for San Diego County

4.3.4 Earthquake

4.3.4.1 Nature of Hazard

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of the Earth's tectonic plates. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and, after just a few seconds, can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. Ground motion is the vibration or shaking of the ground during an earthquake. When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration increases with the amount of energy released and decreases with distance from the causative fault or epicenter. Soft soils can further amplify ground motions. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. One way to express an earthquake's severity is to compare its acceleration to the normal acceleration due to gravity. The acceleration due to gravity is often called "g". A 100% g earthquake is very severe. More damage tends to occur from earthquakes when ground acceleration is rapid. Peak ground acceleration (PGA) is a measure of the strength of ground movement. PGA measures the rate in change of motion relative to the established rate of acceleration due to gravity (980 cm/sec/sec). PGA is used to project the risk of damage from future earthquakes by showing earthquake ground motions that have a specified probability (10%, 5%, or 2%) of being exceeded in 50 years. These ground motion values are used for reference in construction design for earthquake resistance. The ground motion values can also be used to assess relative hazard between sites, when making economic and safety decisions.

Another tool used to describe earthquake intensity is the Richter scale. The Richter scale was devised as a means of rating earthquake strength and is an indirect measure of seismic energy released. The scale is logarithmic with each one-point increase corresponding to a 10-fold increase in the amplitude of the seismic shock waves generated by the earthquake. In terms of actual energy released, however, each one-point increase on the Richter scale corresponds to about a 32-fold increase in energy released. Therefore, a magnitude (M) 7 earthquake is 100 times (10 X 10) more powerful than a M5 earthquake and releases 1,024 times (32 X 32) the energy. An earthquake generates different types of seismic shock waves that travel outward from the focus or point of rupture on a fault. Seismic waves that travel through the earth's crust are called body waves and are divided into primary (P) and secondary (S) waves. Because P waves move faster (1.7 times) than S waves they arrive at the seismograph first. By measuring the time delay between arrival of the P and S waves and knowing the distance to the epicenter, seismologists can compute the Richter scale magnitude for the earthquake.

The Modified Mercalli Scale (MMI) is another means for rating earthquakes, but one that attempts to quantify intensity of ground shaking. Intensity under this scale is a function of distance from the epicenter (the closer to the epicenter the greater the intensity), ground acceleration, duration of ground shaking, and degree of structural damage. This rates the level of severity of an earthquake by the amount of damage and perceived shaking (Table 4.3-1).

Table 4.3-1
Modified Mercalli Intensity Scale

MMI Value	Description of Shaking Severity	Summary Damage Description Used on 1995 Maps	Full Description
I.			Not felt
II.			Felt by persons at rest, on upper floors, or favorably placed.
III.			Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.
IV.			Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motorcars rock. Windows, dishes, doors rattle. In the upper range of IV, wooden walls and frame creak.
V.	Light	Pictures Move	Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clock stop, start, change rate.
VI.	Moderate	Objects Fall	Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked.
VII.	Strong	Nonstructural Damage	Difficult to stand. Noticed by drivers of motorcars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roofline. Fall of plaster, loose bricks, stones, tiles, cornices. Some cracks in masonry C. Small slides and caving in along sand or gravel banks. Concrete irrigation ditches damaged.
VIII.	Very Strong	Moderate Damage	Steering of motorcars affected. Damage to masonry C, partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, and elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Cracks in wet ground and on steep slopes.
IX.	Very Violent	Extreme Damage	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land.
X.			Rails bent greatly. Underground pipelines completely out of services.
XI.			Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.

Several major active faults exist in San Diego County, including the Rose Canyon, La Nacion, Elsinore, San Jacinto, Coronado Bank and San Clemente Fault Zones. The Rose Canyon Fault Zone is part of the Newport-Inglewood fault zone, which originates to the north in Los Angeles, and the Vallecitos and San Miguel Fault Systems to the south in Baja California (see Figure 4.3.3). The Rose Canyon Fault extends inland from La Jolla Cove, south through Rose Canyon, along the east side of Mission Bay, and out into San Diego Bay. The Rose Canyon Fault is considered to be the greatest potential threat to San Diego as a region, due to its proximity to areas of high population. The La Nacion Fault Zone is located near National City and Chula Vista. The Elsinore Fault Zone is a branch of the San Andreas Fault System. It originates near downtown Los Angeles, and enters San Diego County through the communities of Rainbow and Pala; it then travels in a southeasterly direction through Lake Henshaw, Santa Ysabel, Julian; then down into Anza-Borrego Desert State Park at Agua Caliente Springs, ending at Ocotillo, approximately 40 miles east of downtown. The San Jacinto Fault is also a branch of the San Andreas Fault System. This fault branches off from the major fault as it passes through the San Bernardino Mountains. Traveling southeasterly, the fault passes through Clark Valley, Borrego Springs, Ocotillo Wells, and then east toward El Centro in Imperial County. This fault is the most active large fault within County of San Diego. The Coronado Bank fault is located about 10 miles offshore. The San Clemente Fault lies about 40 miles off La Jolla and is the largest offshore fault at 110 miles or more in length (Unified San Diego County Emergency Services Organization Operational Area Emergency Plan, 2014).

4.3.4.2 Disaster History

Historic documents record that a very strong earthquake struck San Diego on May 27, 1862, damaging buildings in Old Town and opening up cracks in the earth near the San Diego River mouth. This destructive earthquake was centered on either the Rose Canyon or Coronado Bank faults and descriptions of damage suggest that it had a magnitude of about 6.0 (M6). The strongest recently recorded earthquake in San Diego County was a M5.3 earthquake that occurred on July 13, 1986 on the Coronado Bank Fault, 25 miles west of Solana Beach. In recent years there have been several moderate earthquakes recorded within the Rose Canyon Fault Zone as it passes beneath the City of San Diego. Three temblors shook the city on 17 June 1985 (M3.9, 4.0, 3.9) and a stronger quake occurred on 28 October 1986 (M4.7) (Demere, SDNHM website 2003). The most recent significant earthquake activity occurred on June 15, 2004 with a M5.3 on the San Diego Trough Fault Zone approximately 50 miles SW of San Diego. It was reported as an IV on the MMI (Southern California Seismic Network).

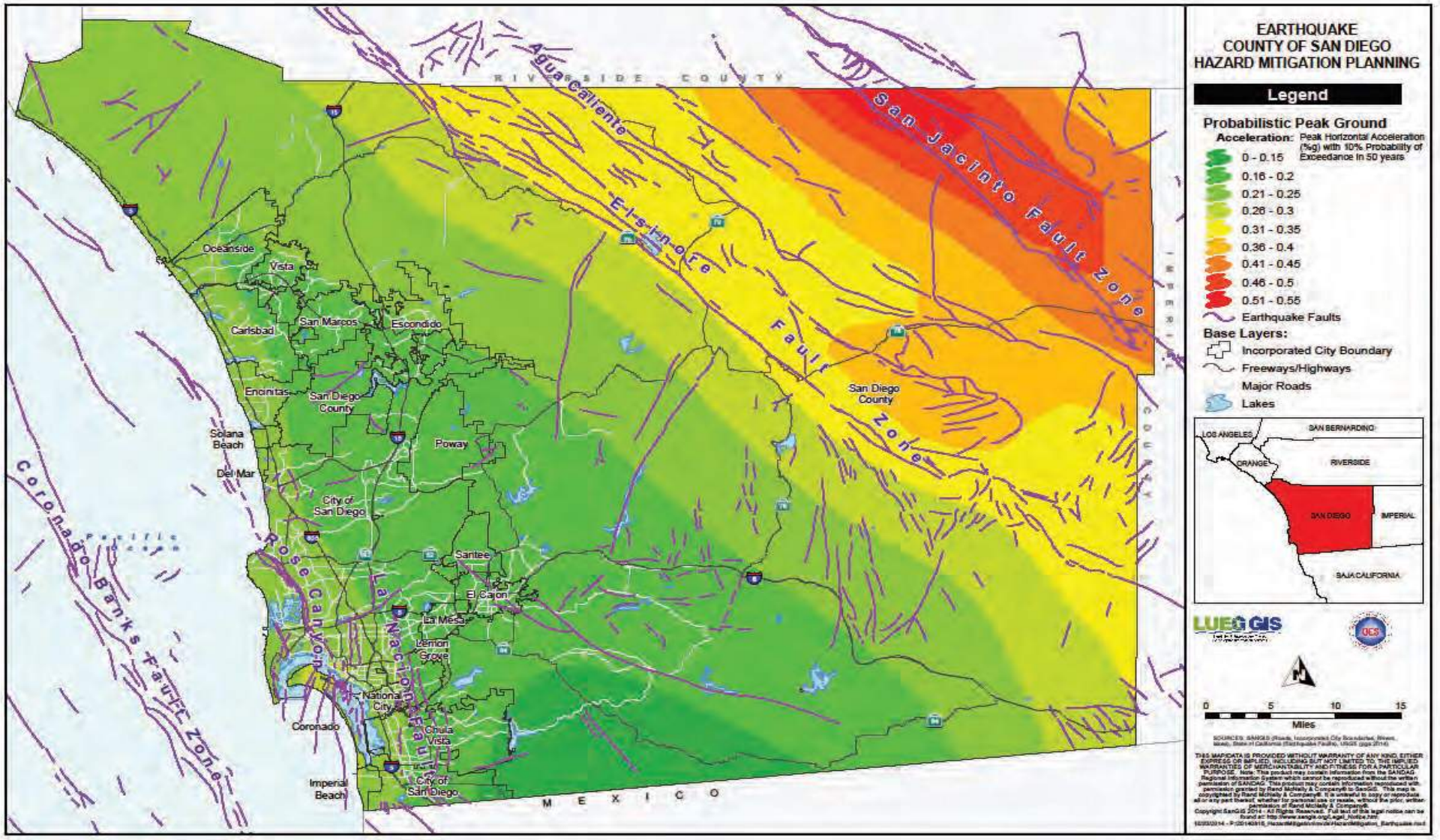
4.3.4.3 Location and Extent/Probability of Occurrence and Magnitude

Figure 4.3.3 displays the location and extent of the profiled earthquake hazard areas for San Diego County. This is based on a USGS earthquake model that shows probabilistic peak ground acceleration for every location in San Diego County. Since 1984, earthquake activity in San Diego County has increased twofold over the preceding 50 years (Demere, SDNHM website 2003). All buildings that have been built in recent decades must adhere to building codes that require them to be able to withstand earthquake magnitudes that create a PGA of 0.4 or greater. Ongoing field and laboratory studies suggest the following maximum likely magnitudes for local faults: San Jacinto (M6.4 to 7.3), Elsinore (M6.5 to 7.3), Rose Canyon (M6.2 to 7.0), La Nacion (M6.2 to 6.6), Coronado Bank (M6.0 to 7.7), and San Clemente (M6.6 to 7.7) (Demere, SDNHM website 2003).

Data used to profile earthquake hazard included probabilistic PGA data from the United States Geological Survey (USGS) and a Scenario Earthquake Shake map for Rose Canyon from the California Integrated Seismic Network (CISN) (refer to Attachment A for complete data matrix). From these data, the HMWG determined that risk level for earthquake is determined to be high if an area lies within a 0.3 or greater PGA designation. Earthquakes were modeled using HAZUS-MH, which uses base information to derive probabilistic peak ground accelerations much like the PGA map from USGS that was used for the profiling process.

The potential for an earthquake in the San Diego region is considered somewhat likely.

Figure 4.3.3


EARTHQUAKE
COUNTY OF SAN DIEGO
HAZARD MITIGATION PLANNING
Legend
Probabilistic Peak Ground Acceleration:
Peak Horizontal Acceleration (%g) with 10% Probability of Exceedance in 50 years
0 - 0.15
0.16 - 0.2
0.21 - 0.25
0.26 - 0.3
0.31 - 0.35
0.36 - 0.4
0.41 - 0.45
0.46 - 0.5
0.51 - 0.55
Earthquake Faults
Base Layers:
Incorporated City Boundary
Freeways/Highways
Major Roads
Lakes
Aguacaliente
San Jacinto Fault Zone
Elsinore Fault Zone
Coronado Banks Fault Zone
Rose Canyon
La Nacion Fault
RIVERSIDE COUNTY
IMPERIAL COUNTY
MEXICO
Oceanside
Vista
Carlsbad
San Marcos
Escondido
Encinitas
San Diego County
Solana Beach
Del Mar
Poway
City of San Diego
Santee
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
City of San Diego
LOS ANGELES
SAN BERNARDINO
ORANGE
RIVERSIDE
SAN DIEGO
IMPERIAL
BAJA CALIFORNIA
LUEG GIS
OES
0 5 10 15
Miles

4.4.2.4 Earthquake, Liquefaction and Earthquake-Induced Landslides

The data used in the earthquake hazard assessment were: 100-, 250-, 500-, 750-, 1000-, 1500-, 2000-, and 2500- year return period USGS probabilistic hazards. Soil conditions for San Diego County as developed by USGS were also used, which allowed for a better reflection of amplification of ground shaking that may occur. The HAZUS software model, which was developed for FEMA by the National Institute of Building Services as a tool to determine earthquake loss estimates, was used to model earthquake and flood for this assessment. This software program integrates with a GIS to facilitate the manipulation of data on building stock, population, and the regional economy with hazard models. PBS&J updated this model in 2003 to HAZUS-MH (Multiple Hazard), which can model earthquake and flood, along with collateral issues associated with each model, such as liquefaction and landslide with earthquakes. This software was not released prior to the beginning of the planning process; however, PBS&J performed vulnerability and loss estimation models for earthquakes and flood for this project using the newer model.

Additionally, the earthquake risk assessment explored the potential for collateral hazards such as liquefaction and earthquake-induced landslides. Three cases were examined, one case with shaking only, a second case with liquefaction potential, and a third with earthquake-induced landslides. Once the model was complete, the identified vulnerable assets were superimposed on top of this information, resulting in three risk/loss estimates: 1) the aggregated exposure and building count (both dollar exposure and population) at the census block level for residential and commercial occupancies, 2) the aggregated population at risk at the census block level, and 3) the critical infrastructure at risk (schools, hospitals, airports, bridges, and other facilities of critical nature). These results were then aggregated and presented by hazard risk level per jurisdiction. Results for residential and commercial properties were generated as annualized losses, which average all eight of the modeled return periods (100-year through 2500-year events). For critical facility losses it was helpful to look at 100- and 500-year return periods to plan for an event that is more likely to occur in the near-term. In the near term, a 500-year earthquake would cause increased shaking, liquefaction and landslide, which would be expected to increase loss numbers. Exposure for annualized earthquake included buildings and population in the entire county because a severe or worst case scenario earthquake could affect any structure in the County. Furthermore, the annualized earthquake loss table also shows potential collateral exposure and losses from liquefaction and landslide separately; this is the additional loss from earthquake due to liquefaction or landslide caused by earthquakes and should be added to the shaking-only loss values to get the correct value. (The collateral liquefaction and landslide loss results for critical facilities were included with earthquake in Tables 4.4-11 and 4.4-12, to plan for an event that is more likely to occur in the near-term as discussed above).

Table 4.4-10 provides a breakdown of potential exposure and losses due to annualized earthquake events by jurisdiction. Tables 4.4-11 and 4.4-12 provide a breakdown of infrastructure and critical facility losses from 100-year and 500-year earthquakes, respectively. Approximately 2,800,000 people may be at risk from the annualized earthquake and earthquake-induced liquefaction hazards. In addition, special populations at risk that may be impacted by the earthquake hazard in San Diego County include 13,689 low-income households and 24,316 elderly persons.

Table 4.4-10
Potential Exposure and Losses from Annualized Earthquake Hazard by Jurisdiction

Jurisdiction	Exposed Population	Residential Buildings at Risk					Commercial Buildings at Risk				
		Building Count	**Potential Loss from Shaking (x$1000)	**Potential Additional Loss from Liquefaction (x$1000)	**Potential Additional Loss from Landslide (x$1000)	Potential Exposure (x$1000)	Building Count	**Potential Loss from Shaking (x$1000)	**Potential Additional Loss from Liquefaction (x$1000)	**Potential Additional Loss from Landslide (x$1000)	Potential Exposure (x$1000)
Carlsbad	104,707	43,723	2,649	0	524	12,308,025	1,559	998	0	352	6,986,970
Chula Vista	232,095	77,457	3,086	332	586	21,804,146	2,184	772	50	262	9,788,033
Coronado	23,009	9,541	1,309	156	208	2,685,792	470	224	0	75	2,106,399
Del Mar	4,591	2,537	235	0	46	714,166	220	110	0	27	985,974
El Cajon	98,205	35,656	1,739	0	319	10,037,164	1,360	726	0	218	6,095,112
Encinitas	64,145	24,848	1,962	0	536	6,994,712	1,268	659	0	209	5,682,796
Escondido	143,071	47,044	2,743	0	399	13,242,886	1,835	1,149	0	339	8,223,920
Imperial Beach	28,243	9,859	680	149	94	2,775,309	346	87	8	34	1,550,668
La Mesa	56,880	25,333	1,026	0	121	7,131,240	952	318	0	82	4,266,578
Lemon Grove	25,650	8,824	454	0	56	2,483,956	365	95	0	32	1,635,821
National City	56,522	15,776	874	56	203	4,440,944	892	420	0	132	3,997,676
Oceanside	179,626	64,642	4,336	646	1,156	18,196,723	1,964	849	34	293	8,802,059
Poway	51,126	16,339	776	0	141	4,599,429	732	257	0	82	3,280,604
San Diego (City)	1,354,013	510,740	32,046	1,648	8,721	143,773,310	18,862	12,428	725	4,231	84,533,825
San Marcos	83,149	27,726	934	0	113	7,804,869	812	518	0	153	3,639,140
Santee	56,848	19,681	1,076	0	279	5,540,202	582	252	0	108	2,608,349
Solana Beach	13,547	6,512	573	62	108	1,833,128	322	312	15	84	1,443,107
Unincorporated-Rural	168,254	60,561	886	0	152	17,047,922	2,177	149	0	43	9,756,661
Unincorporated-Urban Core	333,626	108,042	8,963	1	2,113	30,413,823	3,560	1,123	0	329	15,954,852
Vista	96,100	30,707	1,597	0	251	8,644,021	1,163	411	0	116	5,212,217
Total	3,173,407	1,145,548	$67,943	$3,050	$16,126	$322,471,762	$41,625	$21,860	$832	$7,202	$186,550,763

Table 4.4-11
Potential Exposure to Critical Facilities and Infrastructure from 100-Year Earthquake Hazard by Jurisdiction

Jurisdiction	Data	AIR	BRDG	BUS	COM	ELEC	EMER	GOVT	HOSP	INFR	PORT	POT	WWTR	RAIL	SCH	TOTAL
Carlsbad	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chula Vista	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coronado	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Del Mar	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
El Cajon	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Encinitas	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Escondido	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imperial Beach	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
La Mesa	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lemon Grove	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
National City	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oceanside	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poway	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Diego (City)	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Marcos	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santee	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Solana Beach	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unincorporated -	Number	15	30	1	19	0	26	0	8	437	0	0	1	0	28	565
Rural	Exposure (x$1000)	3,000,000	5,748	2,000	38,000	0	52,000	0	800,000	1,647	0	0	100,000	0	28,000	4,027,395
Unincorporated -	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban Core	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vista	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Number		15	30	1	19	0	26	0	8	437	0	0	1	0	28	565
Total Exposure (x$1000)		3,000,000	5,748	2,000	38,000	0	52,000	0	800,000	1,647	0	0	100,000	0	28,000	4,027,395

Table 4.4-12
Potential Exposure to Critical Facilities and Infrastructure from 500-Year Earthquake Hazard by Jurisdiction

Jurisdiction	Data	AIR	BRDG	BUS	COM	ELEC	EMER	GOVT	HOSP	INFR	PORT	POT	WWTR	RAIL	SCH	TOTAL
Carlsbad	Number	1	33	0	2	1	7	5	2	153	0	2	0	0	33	239
	Exposure (x$1000)	200,000	6,323	0	4,000	10,000	14,000	10,000	200,000	247	0	200,000	0	0	33,000	677,570
Chula Vista	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coronado	Number	0	1	0	1	0	2	4	1	19	0	0	0	0	9	37
	Exposure (x$1000)	0	192	0	2,000	0	4,000	8,000	100,000	30	0	0	0	0	9,000	123,222
Del Mar	Number	0	5	0	0	0	1	2	0	14	0	0	0	0	2	24
	Exposure (x$1000)	0	958	0	0	0	2,000	4,000	0	10	0	0	0	0	2,000	8,968
El Cajon	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Encinitas	Number	0	16	0	1	0	6	3	3	85	0	1	0	7	25	147
	Exposure (x$1000)	0	3,066	0	2,000	0	12,000	6,000	300,000	145	0	100,000	0	14,000	25,000	462,211
Escondido	Number	0	71	1	4	0	8	8	8	83	0	1	1	1	46	232
	Exposure (x$1000)	0	13,604	2,000	8,000	0	16,000	16,000	800,000	211	0	100,000	100,000	2,000	46,000	1,103,815
Imperial Beach	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
La Mesa	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lemon Grove	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
National City	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oceanside	Number	1	43	2	4	0	10	12	11	124	0	1	0	8	43	259
	Exposure (x$1000)	200,000	8,239	4,000	8,000	0	20,000	24,000	1,100,000	250	0	100,000	0	16,000	43,000	1,523,489
Poway	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Diego (City)	Number	2	115	3	15	4	24	35	4	239	47	1	0	5	68	562
	Exposure (x$1000)	400,000	22,034	6,000	30,000	40,000	48,000	70,000	400,000	421	940,000	100,000	0	10,000	68,000	2,134,455
San Marcos	Number	0	12	0	2	0	8	3	2	59	0	0	0	2	28	116
	Exposure (x$1000)	0	2,299	0	4,000	0	16,000	6,000	200,000	149	0	0	0	4,000	28,000	260,448
Santee	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Exposure (x$1000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Solana Beach	Number	0	5	0	0	0	1	2	0	28	0	0	0	1	9	46
	Exposure (x$1000)	0	958	0	0	0	2,000	4,000	0	47	0	0	0	2,000	9,000	18,005
Unincorporated -	Number	30	188	2	31	2	76	1	12	1,145	0	0	4	0	63	1,554
Rural	Exposure (x$1000)	6,000,000	36,021	4,000	62,000	20,000	152,000	2,000	1,200,000	3,818	0	0	400,000	0	63,000	7,942,838
Unincorporated -	Number	0	39	0	9	0	20	3	6	165	0	1	0	2	45	290
Urban Core	Exposure (x$1000)	0	7472.4	0	18000	0	40000	6000	600000	252	0	100000	0	4000	45000	820,725
Vista	Number	0	12	0	0	0	9	4	3	53	0	0	0	10	40	131
	Exposure (x$1000)	0	2,299	0	0	0	18,000	8,000	300,000	101	0	0	0	20,000	40,000	388,400
Total Number		34	540	8	69	7	172	82	52	2,167	47	7	5	36	411	3,637
Total Exposure (x$1000)		6,800,000	103,464	16,000	138,000	70,000	344,000	164,000	5,200,000	5,681	940,000	700,000	500,000	72,000	411,000	15,464,145

5.8 City of Encinitas

The City of Encinitas (Encinitas) reviewed a set of jurisdictional-level hazard maps including detailed critical facility information and localized potential hazard exposure/loss estimates to help identify the top hazards threatening their jurisdiction. In addition, LPGs were supplied with exposure/loss estimates for Encinitas summarized in Table 5.8-1. See Section 4.0 for additional details.

Table 5.8-1
Summary of Potential Hazard-Related Exposure/Loss in Encinitas

		Residential		Commercial		Critical Facilities	
Hazard Type	Exposed Population	Number of Residential Buildings	Potential Exposure/ Loss for Residential Buildings (x $1,000)	Number of Commercial Buildings	Potential Exposure/ Loss for Commercial Buildings (x $1,000)	Number of Critical Facilities	Potential Exposure for Critical Facilities (x $1,000)
Coastal Storm / Erosion	291*	108*	35,367*	4*	1,310*	0	0
Sea Level Rise	187	1	282	103	36,007	11	13,124
Dam Failure	1,920	561	157,922	711	284,994	18	3,449
Earthquake (Annualized Loss - Includes shaking, liquefaction and landslide components)	5,350**	2,761**	777,222**	1,323**	462,918**	55**	149,410**
Floods (Loss)							
100 Year	441	40	11,260	138	48,463	19	17,658
500 Year	462	53	14,920	155	54,419	20	18,424
Rain-Induced Landslide							
High Risk	38	5	1,408	0	0	0	0
Moderate Risk	0	0	0	0	0	0	23
Tsunami	247	3	845	135	47,126	13	15,679
Wildfire/ Structure Fire							
Fire regime II & IV	57,529	23,980	6,750,370	15,107	5,287,475	299	752,375

* Data consistent with the Encinitas – Solana Beach Coastal Storm Damage Reduction Project
** Represents best available data at this time.

After reviewing the localized hazard maps and exposure/loss table above, the following hazards were identified by the Encinitas LPG as their top six, based on their probability and potential impact. A brief rationale for including each of these is included.

- **Earthquake:** On November 22, 1800, a 6.5 magnitude occurred on the Rose Canyon fault offshore from Oceanside. It cracked adobe walls at the missions of San Diego de Alcala and San Juan Capistrano. Other notable local earthquakes include a magnitude 6.0 earthquake centered on the Rose Canyon or Coronado Band faults on May 27, 1862, and a magnitude 5.4 earthquake centered off the coast of Oceanside on the Coronado Bank Fault on July 13, 1986. The geographic extent of this hazard is citywide. A greater percentage of the city's population is potentially exposed to this hazard relative to other hazards, and potential losses from an earthquake would be comparatively larger in most cases.

The Rose Canyon Fault lies offshore (2.5 miles west of the city at its closest point) and is capable of generating a magnitude 6.2 to 7.2 earthquake that could potentially damage dwellings and infrastructure throughout the city. A magnitude 6.9 earthquake on the Rose Canyon Fault could potentially result in a peak ground acceleration of .40 within downtown Encinitas and the Coast Highway 101 corridor. These areas of the city are more likely to suffer heavier damage and greater human losses than other parts of the city because of the presence of older buildings (including 19 unreinforced masonry buildings and 27 two-story, multi-unit buildings constructed prior to 1976), a relatively higher population density and softer soils susceptible to liquefaction, lurch cracking, lateral spreading and local subsidence.

- **Wildfire**: A significant number of Encinitas residents live within the wildland-urban interface. The geographic extent of this hazard includes the following areas of the city, for the most part: 1) Saxony Canyon; 2) South El Camino Real/Crest Drive; and 3) Olivenhain. Properties in these and other smaller areas are susceptible to wildfire because they are situated near open space and canyons containing heavy fuel loads. Reoccurring periods of low precipitation have increased the risk of wildfires in the region. A greater percentage of the population is potentially exposed to wildfires and potential losses from this hazard are comparatively larger than those associated with a dam failure, flooding, coastal bluff failures or hazardous materials incidents. Recent wildfire events in Encinitas include the Harmony Grove Fire in 1996, which resulted in the loss of three homes and evacuation and sheltering of hundreds of residents.

- **Dam Failure**: Geologists estimate that a magnitude 7.5 earthquake from the Elsinore Fault 11 miles east of Lake Wohlford could result in a failure of its hydraulic fill dam. The geographic extent of this hazard is limited to the persons and properties within the inundation path surrounding Escondido Creek and San Elijo Lagoon. The dam inundation path is larger than the Escondido Creek 100-year floodway and a greater number of persons and properties are exposed to this hazard compared to coastal bluff failures and flooding. Major arterials within the inundation path include El Camino Del Norte, Rancho Santa Fe Road, Manchester Avenue and Coast Highway 101. The failure of Wohlford Dam (1895) and Dixon Reservoir Dam (1970) could possibly threaten city facilities and infrastructure (including the San Elijo Water Reclamation Facility, Cardiff and Olivenhain sewer pump stations and the San Dieguito Water District 36" high pressure supply line) and educational facilities (Mira Costa College) located in and adjacent to the inundation path. Although exposure to loss of property is significant, the potential for loss of life is limited because of the length of time before flood wave arrival (approximately 1 ½ hours) allowing for aggressive warning and evacuation measures to be initiated by the city.

  The Olivenhain Dam (2003) is a concrete gravity dam located on a tributary of Escondido Creek, just west of Lake Hodges, holding 24,000 acre feet. Stanley Mahr Reservoir (1981) is a small, earth filled embankment dam located on a tributary of Encinitas Creek in San Marcos with a capacity of approximately 200 acre feet. A failure of Mahr Reservoir in Carlsbad would produce flooding along Encinitas Creek (which flows into Batiquitos Lagoon) in the northern portion of the city. Emergency Action Plans have been developed for these dams. The risk of failure of both dams in relatively low due to their age and construction and existing surveillance and inspection measures.

- **Coastal Bluff Failures**: Geographic extent of the hazard is limited primarily to the Encinitas coastal sandstone bluffs. After the El Nino storms of 1982-1983, Encinitas beaches were stripped of vertical sand up to 20 feet deep putting the coastal bluffs and homes in jeopardy of

collapsing into the sea. Furthermore, the shoreline segments at Moonlight Beach and Cardiff-by-the-Sea are extremely vulnerable to coastal inundation from potential future sea level rise. In 2000, unstable cliffs at Beacon's Beach in Encinitas caused a landslide that killed a woman sitting on the beach. The recreational bicycle path along the seaside of Highway 101 was undermined in 2010.

Erosion studies have been conducted for Encinitas, Solana Beach and Del Mar. Various degrees of coastal bluff erosion occur annually and coastal bluff failures have resulted in limited loss of life. As a result, negotiations with the California Coastal Commission are underway to develop a comprehensive coastal bluff policy towards coastal bluff top development. A smaller percentage of the population is exposed to this hazard relative to earthquakes, wildfires and dam failures and the potential for losses is comparatively less.

- **Flooding**: The geographic extent of this hazard is limited to 1) Encinitas coastline, particularly "Restaurant Row" in Cardiff (south of San Elijo State Beach Campgrounds); 2) Escondido, Encinitas and Cottonwood Creeks; and 3) low-lying areas of Leucadia and Old Encinitas. The city has experienced some property-related losses resulting from localized flooding in Leucadia and coastal flooding in Cardiff, but not loss of life. Winter storms in 1997, 2005-2006 and 2010-2011 resulted in significant damage and required emergency protective measures, debris removal and reconstruction of infrastructure. The associated recovery costs (FEMA public assistance) for the 2005-06 event was over $500,000.

- **Hazardous Materials**: One major freeway (Interstate 5), one railway and a major liquefied petroleum transmission pipeline pass through the community. This hazard is addressed in Attachment A.

5.8.1 Capabilities Assessment

The LPG identified current capabilities available for implementing hazard mitigation activities. The Capability Assessment (Assessment) portion of the jurisdictional mitigation plan identifies administrative, technical, legal and fiscal capabilities. This includes a summary of departments and their responsibilities associated to hazard mitigation planning as well as codes, ordinances, and plans already in place associated to hazard mitigation planning. The second part of the Assessment provides Encinitas' fiscal capabilities that may be applicable to providing financial resources to implement identified mitigation action items.

5.8.2 Existing Institutions, Plans, Policies and Ordinances

The following is a summary of existing departments in Encinitas and their responsibilities related to hazard mitigation planning and implementation, as well as existing planning documents and regulations related to mitigation efforts within the community. Existing policies and procedures are reviewed and revised periodically. The administrative and technical capabilities of Encinitas, as shown in Table 5.8-2, provides an identification of the staff, personnel, and department resources available to implement the actions identified in the mitigation section of the Plan. Specific resources reviewed include those involving technical personnel such as planners/engineers with knowledge of land development and land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or manmade hazards, floodplain managers, surveyors, personnel with GIS skills and scientists familiar with hazards in the community.

Table 5.8-2
City of Encinitas: Administrative and Technical Capacity

Staff/Personnel Resources	Y/N	Department/Agency and Position
A. Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Planning & Building, Public Works (Engineering)
B. Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Planning & Building, Public Works (Engineering) and Fire (Prevention)
C. Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Y	Planning & Building, Public Works (Engineering)
D. Floodplain manager	Y	Public Works (Engineering)
E. Surveyors	N	Contracted through Public Works (Engineering) on a as needed basis
F. Staff with education or expertise to assess the community's vulnerability to hazards	Y	Fire Department, Public Works (Engineering) and Planning & Building
G. Personnel skilled in GIS and/or HAZUS	Y	GIS Division, Planning & Building
H. Scientists familiar with the hazards of the community	N	Contracted as needed
I. Emergency manager	Y	Fire Department
J. Grant writers	Y	All City Departments

The legal and regulatory capabilities of Encinitas are shown in Table 5.8-3, which presents the existing ordinances and codes that affect the physical or built environment of Encinitas. Examples of legal and/or regulatory capabilities can include: the City's building codes, zoning ordinances, subdivision ordnances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

Table 5.8-3
City of Encinitas: Legal and Regulatory Capability

Regulatory Tools (ordinances, codes, plans)	Local Authority (Y/N)	Does State Prohibit? (Y/N)
Building code and Uniform Fire Code	Y	N
International Wildland Urban Interface Code	Y	N
Zoning ordinance	Y	N
Subdivision ordinance or regulations	Y	N
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, grading, wildfire ordinances, hazard setback requirements, water conservation, clean water/NPDES)	Y	N
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	Y	N
Site plan review requirements	Y	N
Land use overlay zones (Floodplain, Hillside/Inland and Coastal Bluff)	Y	N
General or comprehensive plan	Y	N
Local Coastal Program	Y	N
A capital improvements plan	Y	N
An economic development plan / strategy	Y	N
An emergency response plan	Y	N
A post-disaster recovery plan	N	N
A post-disaster recovery ordinance	N	N
Real estate disclosure requirements (required by CA state law)	N	N

5.8.3 Fiscal Resources

Table 5.8-4 shows specific financial and budgetary tools available to Encinitas such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

Table 5.8-4
City of Encinitas: Fiscal Capability

Financial Resources	Accessible or Eligible to Use (Yes/No)
A. Community Development Block Grants (CDBG)	Yes
B. Capital improvements project funding	Yes
C. Authority to levy taxes for specific purposes	Yes - Vote required
D. Fees for water, sewer, gas, or electric service	Yes
E. Impact fees for homebuyers or developers for new developments/homes	Yes
F. Incur debt through general obligation bonds	Yes
G. Incur debt through special tax and revenue bonds	Yes - Vote required
H. Incur debt through private activity bonds	Yes
I. Withhold spending in hazard-prone areas	Yes
J. State and Federal grants for post disaster mitigation	Yes

5.8.4 Goals, Objectives and Actions

Listed below are Encinitas' specific hazard mitigation goals, objectives and related potential actions. For each goal, one or more objectives have been identified that provide strategies to attain the goal. Where appropriate, the City has identified a range of specific actions to achieve the objective and goal.

The goals and objectives were developed by considering the risk assessment findings, localized hazard identification and loss/exposure estimates, and an analysis of the jurisdiction's current capabilities assessment. These preliminary goals, objectives and actions were developed to represent a vision of long-term hazard reduction or enhancement of capabilities. To help in further development of these goals and objectives, the LPG compiled and reviewed current jurisdictional sources including the City's planning documents, codes, and ordinances. In addition, City representatives met with consultant staff and/or OES to specifically discuss these hazard-related goals, objectives and actions as they related to the overall Plan. Representatives of numerous City departments involved in hazard mitigation planning provided input to the Encinitas LPG. The San Dieguito Water District is a subsidiary district to the City of Encinitas and its goals, objectives and actions are included in this document. The Encinitas LPG members were:

- Wendy Flynn, GIS Supervisor / Project Manager, GIS Division
- Tom Gallup, Senior Management Analyst, Fire Department **(no longer with Department)**
- Corina Jimenez, Senior Management Analyst, Fire Department **(added in 2017)**
- Kipp Hefner, Associate Engineer, Development Services Department **(no longer with City)**
- Matt Widelski, Engineer II, Development Services Department **(added in 2017)**
- Blair Knoll, Senior Engineer, San Dieguito Water District
- Bob McSeveney, Senior Management Analyst, City Manager's Office
- Steve Nowak, Associate Engineer, Development Services Department
- Anita Pupping, Fire Marshal, Fire Department

- Michael Strong, Associate Planner, Development Services Department **(no longer with City)**
- Laurie Winters, Planer IV, Development Services Department **(added in 2017)**
- Christy Villa, Associate Engineer, Development Services Department **(no longer with City)**
- Scott Vurbeff, Environmental Project Manager, Development Services Department
- Katherine Weldon, Program Administrator, City Manager's Office
- Bryce Wilson, Senior Management Analyst, Public Works Department

Once developed, City staff submitted the plan to the State of California and FEMA. Once FEMA has approved the plan it will be taken the Encinitas City Council for adoption.

A public survey was posted on all participating agencies websites from March through July 2014. Over 500 responses were received. The survey results are in Appendix E. An email address was provided for the public to send comments and suggestions to. This email address was checked daily for public input.

The following sections present the hazard-related goals, objectives and actions as prepared by Encinitas' LPG in conjunction with the Hazard Mitigation Working Group, locally elected officials, and local citizens.

The San Dieguito Water District is a subsidiary district of the City of Encinitas. The Olivenhain Municipal Water District, Santa Fe Irrigation District and North County Transit District have adopted Local Multi-hazard Mitigation Plans. The goals, objectives and action items identified in the City of Encinitas' plan compliment and support those identified our partner agencies' plans.

References

In addition to the references listed in Section 7, the Encinitas LPG relied on studies and documents specifically produced for the City of Encinitas. Also, referenced are City Council resolutions adopting previous versions of the Multi-Jurisdictional Hazard Mitigation Plan:

Solana Beach-Encinitas Shoreline Study, U.S. Army Corps of Engineers, December 2012

Highway 101 Bridge over the San Elijo Lagoon (57C-210) Seismic Vulnerability Study Report, Ty Lin International, November 4, 2011

City of Encinitas Resolution 2011-19, Approving Revisions to the Multi-Jurisdictional Hazard Mitigation Plan, April 13, 2011.

Encinitas Fire Department Wildfire Hazard Reduction Project, Dudek & Associates Inc., December 2005

Addendum to Hydrologic and Hydraulic Study for Leucadia Drainage Improvement Alternatives, Rick Engineering Company, January 28, 2005
City of Encinitas Resolution 2004-20, Approving the San Diego County Multi-Jurisdictional Hazard Mitigation Plan and Implementing the Recommended Actions Assigned in the Plan for the City of Encinitas, April 14, 2004.

Hazard Analysis of the City of Encinitas Transmission Pipelines, ABSG Consulting Inc., July 2003.

Beach Bluff Erosion Technical Report, Zeisler Kling Consultants, Inc., November 24, 1993

City of Encinitas Unreinforced Masonry Building Survey and Report, EQE Engineering and Design, January 24, 1991

5.8.4.1 Goals

The City of Encinitas has developed the following 10 Goals for their Hazard Mitigation Plan

Goal 1. Promote disaster-resistant existing and future development.

Goal 2. Minimize losses by providing for the prompt resumption of city operations and restoration of city services after a disaster (post-disaster mitigation).

Goal 3. Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.

"Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to":

Goal 4. Geologic Hazards, including Earthquake, Liquefaction and Landslides

Goal 5. Structural Fires/Wildfires

Goal 6. Flooding/Dam Failure

Goal 7. Coastal Erosion and Bluff Failure/Storm Surge/Tsunami/Sea Level Rise

Goal 8. Severe Weather, including Extreme Heat

Goal 9. Drought

Goal 10. Other Manmade Hazards (See Attachment A)

5.8.4.2 Objectives and Actions

The City of Encinitas developed the following broad list of objectives and actions to assist in the implementation of each of their 10 identified goals. The City of Encinitas developed objectives to assist in achieving their hazard mitigation goals. For each of these objectives, specific actions were developed that would assist in their implementation. A discussion of the prioritization and implementation of the action items is provided in Section 5.8.5.

Goal 1: Promote disaster resistant existing and future development.		**Applies to New, Existing or Both**
Objective 1.A: Encourage and facilitate the continuous review and updating of general plans and zoning ordinances to limit development in hazard areas.		
Action 1.A.1	Continue to rely on the Floodplain, Coastal Bluff and Hillside/Inland Bluff Overlay Zones to prevent future development or redevelopment that will represent a hazard to its owners or occupants, and which may require structural measures to prevent destruction erosion or collapse.	NEW
Action 1.A.2	Continue to establish and implement standards based on the 50- and 100-year storm, for flood control drainage improvements and the maintenance of such improvements, designed to assure adequate public safety.	BOTH
Action 1.A.3	Continue to evaluate the effectiveness of the goals that have been developed in the City's Public Safety Element that minimize the risks associated with natural and man-made hazards.	NEW
Action 1.A.4	Prohibit development or filling within any 100-year floodplain, except as provided in Public Safety Policy 1.1.	NEW
Action 1.A.5	Require and maintain setbacks, easements, and accesses that are necessary to assure that emergency services can function with available equipment.	BOTH
Action 1.A.6	Ensure construction standards reduce structural susceptibility and increase protection in areas identified as susceptible to brush or wildfire hazard,	NEW
Action 1.A.7	Periodically evaluate and update the City's General Plan to ensure compliance with California Government Code section 65302.6 (AB 2140).	N/A
Objective 1.B: Encourage and facilitate the adoption of building codes and construction requirements that protect renovated existing assets and new development in hazard areas.		
Action 1.B.1	Observe and apply measures to reduce seismic structural risk through building and construction codes.	NEW
Action 1.B.2	New residential and commercial construction shall provide for smoke detector and automatic fire sprinkler systems to reduce the impact of development on fire suppression and EMS service levels.	NEW
Action 1.B.3	The roof covering any structure regulated by the municipal code shall be a roof classification no less than a Class A Roof-Covering.	BOTH
Action 1.B.4	Require exterior wall surfacing materials be made of non-combustible materials.	BOTH
Action 1.B.5	Require underground electrical infrastructure for new development.	NEW
Action 1.B.6	Require a minimum flow of water for fire protection.	NEW

Goal 1: Promote disaster resistant existing and future development.		**Applies to New, Existing or Both**
Objective 1.C: Encourage consistent <u>enforcement</u> of general plans, zoning ordinances, and building codes.		
Action 1.C.1	Enforce the policies of the Public Safety Element of the City's General Plan, which identifies the hazards faced by the City and the appropriate actions and responses needed to be taken by City departments and staff.	BOTH
Action 1.C.2	Continue to authorize city officials to issue citations where compliance cannot be gained through traditional means, such as written notification.	BOTH
Action 1.C.3	Continue to authorize city officials to place liens on properties that do not comply with City's weed abatement ordinance.	BOTH
Action 1.C.4	Continue to provide a building inspection and code enforcement program to ensure compliance with codes and ordinances.	BOTH
Objective 1.D: Discourage future development that <u>exacerbates</u> hazardous conditions and protect and restore natural buffers.		
Action 1.D.1	Maintain prohibition of development and grading or filling in drainage courses, floodways and floodplains, except as provided by Land Use Element Policy 8.2. When flood/drainage improvements are warranted, require developers to mitigate flood hazards in those areas identified as being subject to periodic flooding prior to actual development.	NEW
Action 1.D.2	Continue to rely on the Floodplain, Coastal Bluff and Hillside/Inland Bluff Overlay Zones to prevent future development or redevelopment that will represent a hazard to its owners or occupants, and which may require structural measures to prevent destruction, erosion or collapse.	NEW
Action 1.D.3	Continue to evaluate and update City's Open Space Management Plan that preserves environmentally significant portions of parcels and acquires areas for conservation or public parkland and continue participation in the North County Multiple Habitat Conservation Program.	NEW
Action 1.D.4	Continue to require an Environmental Impact Report to identify degrees of risk, when necessary.	NEW
Action 1.D.5	Continue to require setbacks from delineated hazard areas (i.e., shoreline, wetlands, steep slopes).	BOTH
Action 1.D.6	Continue to require easements to prevent development in known hazard areas.	BOTH
Action 1.D.7	Continue to require that development projects comply with the California Environmental Quality Act (CEQA) and other environmental review standards.	NEW

Goal 1: Promote disaster resistant existing and future development.		**Applies to New, Existing or Both**
Action 1.D.8	Continue to incorporate proper species selection, planting and maintenance practices at city facilities and for consideration in the development of landscape ordinances.	BOTH
Objective 1.E: In coordination with federal, state and county agencies, continue to utilize emerging technologies and share available data to evaluate risks and provide better information about hazards.		
Action 1.E.1	Utilize updated Fire Hazard Severity Zone map as part of periodic amendments to Encinitas Municipal Code Chapter 10.04.010 (California Fire Code).	N/A
Action 1.E.2	Continue to obtain local data including parcel-specific data, building footprints, critical facility locations and other information for use in risk analysis and possible incorporation in future EnerGov platform.	N/A
Action 1.E.3	Require engineering studies to evaluate specific hazards in hazard prone areas and identify alternative site design criteria to mitigate hazards to the maximum extent possible, as funding permits.	BOTH
Action 1.E.4	Update databases/Geographic Information System (GIS), with particular attention to maintaining hazard overlay layers and mapping risk for various hazards and require electronic submittals of plans.	N/A
Action 1.E.5	Ensure aerial photography is kept current.	N/A
Action 1.E.6	Participate in the San Diego Regional Public Safety Geodatabase project which provides a central repository of Public Safety GIS information and a model framework for consolidation of disparate data from regional agencies.	N/A
Action 1.E.7	Further develop database of contaminated soils within the city.	N/A
Action 1.E.8	Utilize modeling tools to evaluate impacts of potential sea level rise.	N/A
Action 1.E.9	Support State of California's efforts for mapping of hazards, including seismic, wildfire and tsunami run-up.	N/A
Objective 1.F: Address future conditions resulting from climate change and mitigate future environmental impacts through adaptation strategies and sustainability efforts.		
Action 1.F.1	Continue to implement the Climate Action Plan that addresses AB32 and SB375 (City Council Resolution 2011-11) and conduct updates and revisions, as necessary.	N/A
Action 1.F.2	Continue to promote sound environmental management practices throughout all city departments and services through an annual review and update of the Environmental Action Plan. (Council Policy C025).	N/A

Goal 1: Promote disaster resistant existing and future development.		**Applies to New, Existing or Both**
Action 1.F.3	Continue to provide incentives that enable homeowners and commercial-property owners to pay off energy- and water-efficiency improvements through their property tax bill, as part of the HERO Property Assessed Clean Energy (PACE) Program.	BOTH
Action 1.F.4	Consider options that mandate certain energy efficient construction standards for new construction as well as options that incentivize the retrofit of existing structures ("Green Building Codes").	BOTH
Action 1.F.5	Evaluate the applicability of converting the City's fleet to alternative fuels.	N/A
Objective 1.G: Develop strategies for minimizing health and safety risks to residents.		
Action 1.G.1	Continue to participate in the Live Well San Diego partnership.	N/A
Action 1.G.2	Continue participation in Safe Routes to School program, in partnership with state and federal agencies.	N/A
Action 1.G.3	Develop strategies to meet the needs of increasing senior-aged population.	N/A
Action 1.G.4	Work with Senior Commission and local care facilities to educate Encinitas seniors and providers about the benefits of mitigation practices.	N/A

Goal 2: Minimize losses by providing for the prompt resumption of city operations and restoration of city services after a disaster (post-disaster mitigation).		**Applies to New, Existing or Both**
Objective 2.A: Prepare plans and identify resources that facilitate recovery from disasters		
Action 2.A.1	Prepare a Debris Management Plan.	N/A
Action 2.A.2	Ensure city facilities are equipped with alternative emergency power sources and replace the emergency standby generator at the Encinitas Civic Center with new generator with greater capacity.	BOTH
Action 2.A.3	Ensure redundancy in the data network serving city facilities and provide necessary alternate telecommunications capabilities.	BOTH
Action 2.A.4	Continue to utilize Supervisory Control and Data Acquisition (SCADA) systems to minimize interruptions in water service delivery.	N/A
Action 2.A.5	Assist Santa Fe Irrigation District (SFID) in securing regional grant funds to configure the San Dieguito Reservoir Pump Station with a permanent back-up power supply.	EXISTING

Goal 3: Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.
Objective 3.A: Establish and maintain close working relationships with state agencies, local, and tribal governments.

Goal 3: Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.		
Action 3.A.1	Maintain partnerships in mitigation and disaster planning	BOTH
Action 3.A.2	Explore opportunities for additional funding through cooperative efforts	BOTH
Objective 3.B: Improve the City's capability and efficiency at administering pre- and post-disaster mitigation.		
Action 3.B.1	Find additional emergency management training opportunities for staff	N/A
Action 3.B.2	Continue participation in the regional training and exercise program	N/A
Action 3.B.3	Make this institutional for the staff	N/A
Action 3.B.4	Train multiple staff members for each position in the EOC to ensure adequate staffing levels	N/A

Goal 4: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>geologic hazards, including earthquake, liquefaction and landslides</u>.		**Applies to New, Existing or Both**
Objective 4.A: Develop a comprehensive approach to <u>reducing the possibility of damage and losses</u> due to geologic hazards, including earthquake, liquefaction and landslides.		
Action 4.A.1	Encourage property owners to voluntarily upgrade buildings to provide acceptable performance during an earthquake.	EXISTING
Action 4.A.2	Continue to conduct routine seismic safety surveys/assessments of city facilities to ensure that heavy furniture and equipment are properly secured.	EXISTING
Action 4.A.3	Working with Downtown Encinitas Mainstreet Association (DEMA) representatives, educate business owners about potential safety risks of unreinforced masonry buildings and identify existing low cost options to retrofit unreinforced masonry buildings, such as tax credits and tax preference incentives available for the rehabilitation of historic buildings, such as La Paloma Theater.	EXISTING
Action 4.A.4	Contingent on funding from San Diego Gas and Electric, continue to underground existing overhead electrical lines, including portions of Santa Fe Drive and Birmingham Drive.	EXISTING
Action 4.A.5	Consider bracing water heaters, if necessary, in conjunction with the Fire Department's smoke detector installation program for seniors and those with special needs.	EXISTING
Objective 4.B: <u>Protect existing assets</u> with the highest relative vulnerability to the effects of geologic hazards, including earthquake, liquefaction and landslides.		

Goal 4: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>geologic hazards, including earthquake, liquefaction and landslides</u>.		**Applies to New, Existing or Both**
Action 4.B.1	As funding permits, seismically upgrade (retrofit) or reconstruct Fire Station #1 (originally constructed in 1957) to meet existing building codes.	EXISTING
Action 4.B.2	Rebuild Moonlight Beach Lifeguard Tower to meet existing building codes.	EXISTING
Action 4.B.3	As funding permits, replace South Coast Highway 101 bridge (constructed in 1932).	EXISTING
Action 4.B.4	Support phased implementation of seismic upgrades recommended by Carollo Engineers to the San Elijo Water Reclamation Facility, as funding permits.	EXISTING
Action 4.B.5	Continue to train staff on using rapid visual screening to quickly inspect city facilities and identify damage or potential seismic structural and non-structural weaknesses.	N/A
Objective 4.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate geologic hazards, including earthquake, liquefaction and landslides.		
Action 4.C.1	Support the replacement of freeway bridge supports at La Costa Ave., Encinitas Blvd., Santa Fe Dr. and Mackinnon Avenue with new supports that meet current seismic standards as part of Caltrans future Interstate 5 widening project.	BOTH
Action 4.C.2	Support the replacement, repair or retrofitting of the 70 year old ballasted deck, pile trestle type (BDPT) rail bridges in Encinitas by the North County Transit District, as funding becomes available.	EXISTING
Action 4.C.3	Continue to support earthquake mitigation efforts by Scripps Memorial Hospital as part of its expansion.	BOTH
Action 4.C.4	Encourage federal and state government to provide economic incentives for Encinitas property owners to retrofit unreinforced masonry buildings.	EXISTING
Action 4.C.5	Support efforts by the Encinitas Union School District, Cardiff Elementary School District and San Dieguito Union High School District to evaluate the seismic risk to schools within Encinitas and implement mitigation measures, if necessary.	EXISTING
Action 4.C.6	Encourage utility companies to evaluate the seismic risk to their high-pressure transmission pipelines and encourage the development of a risk reduction strategy and the implementation of mitigation measures, such as automatic shut off valves, if necessary.	EXISTING

Goal 4: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to geologic hazards, including earthquake, liquefaction and landslides.		**Applies to New, Existing or Both**
Action 4.C.7	Support regional efforts by water agencies to ensure the delivery of water through the use of emergency interconnections and redundancies throughout their delivery systems.	BOTH
Objective 4.D: Educate citizens about seismic risks, the potential impacts of geologic hazards, including earthquake, liquefaction and landslides, and opportunities for mitigation actions.		
Action 4.D.1	Educate Encinitas business owners about the benefit of retrofitting buildings for improved seismic performance, as well as the possibility of reduced insurance premiums and provide them with loss prevention strategies.	N/A
Action 4.D.2	Continue to develop and provide managers of mobile home parks and owners of multi-unit buildings with earthquake mitigation and safety information, including how to improve the seismic performance of mobile homes and buildings.	N/A
Action 4.D.3	Continue to maintain the Community Emergency Response Team (CERT) program as a means for mitigating hazards in neighborhoods, which includes educating neighborhood teams on safety techniques to follow during and after an earthquake (such as shutting off residential gas valves).	N/A
Action 4.D.4	Increase awareness among at-risk and special needs populations of emerging earthquake mitigation technologies, including early warning systems.	N/A
Action 4.D.5	Continue to promote CalOES "My Hazards" interactive web site.	N/A

Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to wildfires/structural fires.		**Applies to New, Existing or Both**
Objective 5.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to wildfires/structural fires.		
Action 5.A.1	Continue to enforce the City's weed abatement policy.	BOTH
Action 5.A.2	Continue to conduct fire safety inspections to reduce the risk of wildfire/structural fire.	BOTH
Action 5.A.3	Continue to encourage existing property owners without fire suppression ("sprinkler") systems or a class A rated roof covering to voluntarily install them.	EXISTING

Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to wildfires/structural fires.		**Applies to New, Existing or Both**
Action 5.A.4	Evaluate existing emergency resources (i.e. brush trucks, water tenders) and, if necessary and funding is available, purchase additional resources.	N/A
Action 5.A.5	Continue to offer fire extinguisher training to City employees and staff and community organizations upon request.	N/A
Action 5.A.6	Update the San Dieguito Water District Master Plan with particular attention to fire system upgrades (i.e. hydrants adequately spaced, sufficient water flow).	N/A
Action 5.A.7	Work with Olivenhain Municipal Water District, Rancho Santa Fe Fire Protection District and Elfin Forest/Harmony Grove Fire Department to secure grant funding to add additional hydrants in wildland urban interface areas.	NEW
Action 5.A.8	Pursue an Insurance Service Organization (ISO) rating of 2 or lower (current rating is 3).	N/A
Action 5.A.9	Complete installation of approximately 100 to 150 new fire hydrants in older areas of the city served by San Dieguito Water District to meet current hydrant spacing requirements (SDWD Master Plan project number HP-5).	NEW
Action 5.A.10	Provide vegetation management recommendations to developments or homeowner associations bordering open space or in Very High Fire Hazard Severity Zones.	BOTH
Action 5.A.11	Participate in the upgrade of the regional 800 MHz radio system to improve communication and coordination among emergency responders. A coordinated response can reduce losses during the initial onset of a wildfire.	N/A
Action 5.A.12	Continue to provide for the coordinated delivery of fire protection services through boundary drop, automatic aid and mutual aid agreements with other agencies when appropriate.	BOTH
Objective 5.B: Protect existing assets with the highest relative vulnerability to the effects of wildfires/structural fires.		
Action 5.B.1	Continue to support efforts by the Santa Fe Irrigation District (SFID) to implement mitigation measures (i.e. landscape maintenance, weed abatement, brush removal) necessary to protect the R.E. Badger Filtration Plan, as funding becomes available.	EXISTING
Action 5.B.2	Continue to support efforts by the Olivenhain Municipal Water District (OMWD) to implement mitigation measures (i.e. landscape maintenance, weed abatement, brush removal) necessary to protect, as funding becomes available.	EXISTING

Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to wildfires/structural fires.		**Applies to New, Existing or Both**
Objective 5.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate wildfire/structural fire hazards.		
Action 5.C.1	Working with other agencies, support efforts to locate firefighting aircraft within San Diego County and use of military aerial support during wildfires.	N/A
Action 5.C.2	Continue to support the pre-positioning of SDG&E helicopter at Olivenhain helibase (southwest of Olivenhain Dam) during red-flag warnings.	N/A
Action 5.C.3	Support San Elijo Lagoon Conservancy and California Conservation Corps efforts to clear non-native vegetation and thin brush near Escondido Creek.	EXISTING
Action 5.C.4	Continue Fire Department's partnership with SDWD and OMWD to inspect and maintain fire hydrants.	EXISTING
Objective 5.D: Educate citizens about wildfire/structural fire risks, the potential impacts of wildfires/structural fires, their consequences and opportunities for mitigation actions.		
Action 5.D.1	Conduct annual workshops/seminars that educate residents about wildfire defensible space actions and make them aware of possible reductions in insurance premiums for implementing mitigate strategies. Incorporate Ready, Set, Go! program guidelines.	N/A
Action 5.D.2	Incorporate hazard mitigation education/training in routine inspections of businesses by engine companies and fire inspectors. Educate Encinitas business owners about the benefit of installing fire suppression systems in older buildings during inspections.	N/A
Action 5.D.3	Continue to provide Community Emergency Response Team (CERT) training for volunteers to assist early notification and evacuation efforts in their neighborhoods, as well to extinguish small home fires.	N/A
Action 5.D.4	Maintain wildfire defensible space and landscaping exhibit at Sun Vista Park.	N/A
Action 5.D.5	Continue partnership with San Diego Botanical Gardens to promote wildfire defensible space exhibit.	N/A
Action 5.D.6	Continue Fire Department's smoke detector installation program in partnership with the Burn Institute to install smoke detectors for seniors and special needs population.	N/A
Action 5.D.7	Continue to promote CalOES "My Hazards" interactive web site.	N/A
Action 5.D.8	Promote Santa Ana Wildfire Threat Index to provide citizens with early warning of high risk conditions.	N/A

Goal 6: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>flooding / dam failure</u>.		**Applies to New, Existing or Both**
Objective 6.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to flooding / dam failure.		
Action 6.A.1	Establish and implement standards based on the 50- and 100-year storm, for flood control drainage improvements, and the maintenance of such improvement, designed to assure adequate public safety.	BOTH
Action 6.A.2	Adopt a master plan for drainage and flood control.	BOTH
Action 6.A.3	Continue to provide public support by maintaining pumping equipment and vacuum trucks and by providing supplies of sand and sandbags for residents.	N/A
Action 6.A.4	Continue to participate in the National Flood Insurance Program and requirement to review applications for conformance with NFIP standards.	BOTH
Action 6.A.5	Continue to improve road flooding problems by constructing permanent drainage structures as approved and funded in the City's Capital Improvement Program (CIP) budget.	EXISTING
Objective 6.B: Protect existing assets with the highest relative vulnerability to the effects of flooding / dam failure.		
Action 6.B.1	Implement comprehensive Leucadia Drainage Project (100 year storm drain system), as funding permits.	NEW
Action 6.B.2	Complete drainage improvements in conjunction with the Highway 101 streetscape project.	NEW
Action 6.B.3	Complete Encinitas Creek Channel Improvement project at Leucadia Blvd. and El Camino Real.	NEW
Action 6.B.4	Improve drainage channel at Stratford Knoll and Lone Jack Rd.	EXISTING
Action 6.B.5	Complete Cottonwood Creek outfall replacement project.	NEW
Objective 6.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate flooding / dam failures.		
Action 6.C.1	Continue to participate in Wohlford Dam failure tabletop and functional disaster exercises with City of Escondido.	N/A
Action 6.C.2	Ensure that City has adequate information from dam owners and California Dam and Safety Board so that areas subject to inundation can be identified.	N/A
Action 6.C.3	Working with County Office of Emergency Services, continue to maintain an early warning system to minimize/mitigate dam inundation hazards to critical facilities and vulnerable populations.	N/A

Goal 6: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>flooding / dam failure</u>.		**Applies to New, Existing or Both**
Action 6.C.4	Working with the U.S. Army Corp of Engineers, continue developing a drainage maintenance program.	NEW
Action 6.C.5	Support multi-agency San Elijo Lagoon Restoration Project.	N/A
Action 6.C.6	Support efforts by the City of Escondido to secure mitigation funding (i.e. grants) from State and Federal government to strengthen Wohlford Dam.	EXISTING
Action 6.C.7	Encourage Mira Costa College to implement mitigation activities for dam failure / flooding (along Manchester Ave.), if necessary.	N/A
Action 6.C.8	Continue to coordinate with the Vallecitos Water District to promote mitigation measures that protect residents downstream from Stanley Mahr Reservoir.	N/A
Action 6.C.9	Continue to coordinate with the San Diego County Water Authority to promote mitigation measures that protect Encinitas residents downstream from Olivenhain Dam.	N/A
Action 6.C.10	Support efforts by the San Elijo JPA to evaluate need for a secondary emergency access road in the event flooding blocks entrance/exit to the reclamation facility off Manchester Ave.	NEW
Objective 6.D: Educate citizens about flooding / dam failure risk, the potential impacts of flooding / dam failure and opportunities for mitigation actions.		
Action 6.D.1	Promote the FloodSmart.gov and CalOES's "My Hazards" interactive web site to provide residents with recommended flood mitigation actions.	N/A

Goal 7: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise</u>.		**Applies to New, Existing or Both**
Objective 7.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		
Action 7.A.1	Continue to develop and adopt a comprehensive plan, based on the Beach Bluff Erosion Technical Report and U.S. Army Corps of Engineers shoreline study, to address the coastal bluff recession and shoreline erosion problems in the City.	BOTH
Action 7.A.2	Continue to support and encourage sand replenishment on Encinitas shoreline.	N/A

Goal 7: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		**Applies to New, Existing or Both**
Action 7.A.3	Protect coastal bluffs by enforcing compliance with storm water run-off regulations and implementation of run-off infiltration and diversion measures that protect coastal bluffs.	BOTH
Action 7.A.4	Update the coastal hazard map and GIS database of all coastal data, including existing structures, infrastructure, location and size of bluff failures and sea walls throughout the city.	N/A
Action 7.A.5	Formulate an adaptive management plan that addresses the potential impacts of mean sea level rise for the coast that is technically feasible, environmentally sensitive, economically sustainable and politically realistic.	BOTH
Action 7.A.6	Continue to update and amend Local Coastal Plan, as necessary, and incorporate potential sea-level rise and coastal flooding impacts.	BOTH
Objective 7.B: Protect existing assets with the highest relative vulnerability to the effects of coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		
Action 7.B.1	Develop a long-term plan to protect Highway 101 south of Chesterfield Ave. (including bridge), Manchester Ave. and sewer pump station from sea level rise, storm surge and coastal erosion.	BOTH
Action 7.B.2	Rebuild Moonlight Beach Lifeguard Tower to meet existing building codes.	EXISTING
Action 7.B.3	Add storm protection rip-rap on South Coast Highway 101 in Cardiff–by-the-Sea to protect east side of road (adjacent to San Elijo Lagoon).	EXISTING
Action 7.B.4	Implement mitigation measures to stabilize the bluff and protect Beacon's Beach public access, as funding permits.	EXISTING
Objective 7.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		
Action 7.C.1	Coordinate with Army Corp of Engineers to implement a shoreline preservation strategy.	BOTH
Action 7.C.2	Continue to discuss tsunami mitigation strategies for San Elijo State Beach campground with State of California Department of Parks and Recreation and Sheriff's Department.	EXISTING
Action 7.C.3	Working with U.S. Army Corps of Engineers, support the opening of the San Elijo Lagoon mouth as a means of mitigating floods.	EXISTING

Goal 7: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		**Applies to New, Existing or Both**
Action 7.C.4	Support efforts by NCTD to replace, repair or retrofit rail bridge near San Elijo Lagoon, as identified in 2007 NCTD Hazard Mitigation Plan (pages 76-77), and evaluate need for elevation due to extreme high water.	EXISTING
Action 7.C.5	Ensure that City has adequate information so that areas subject to tsunami run-up can be identified.	EXISTING
Action 7.C.6	Identify Federal and State funding to minimize/mitigate hazards to critical facilities and vulnerable populations.	EXISTING
Action 7.C.7	Encourage improvements to NOAA tsunami early warning systems.	EXISTING
Action 7.C.8	Support regional efforts to model sea level rise, conduct vulnerability and risk assessments and develop adaptation plans that identify effective accommodation, protection, and retreat strategies.	BOTH
Objective 7.D: Educate citizens about the risks from coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise, associated potential impacts, and opportunities for mitigation actions.		
Action 7.D.1	Provide information on coastal bluff failures and mitigation strategies on the city's web site and via social media applications.	N/A
Action 7.D.2	Continue to maintain tsunami and bluff failure warning signs, as a means to encourage mitigation measures and reduce potential loss of life and damage to property.	N/A

Goal 8: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to severe weather, including extreme heat.		**Applies to New, Existing or Both**
Objective 8.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to severe weather, including extreme heat.		
Action 8.A.1	Continue to participate in the National Weather Service StormReady Program.	N/A
Action 8.A.2	Continue to participate in Tree City USA program, as a means to reduce urban heat island effect and cool the built environment by encouraging tree planting and preservation.	N/A
Action 8.A.3	Continue to utilize public facilities, including the Community Center and Library, as "cool zone" sites on days when weather conditions are excessively hot.	N/A
Objective 8.B: Protect existing assets with the highest relative vulnerability to the effects of		

Goal 8: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to severe weather, including extreme heat.		**Applies to New, Existing or Both**
severe weather, including extreme heat.		
Action 8.B.1	Ensure that city facilities are equipped with emergency standby generators.	EXISTING
Objective 8.C: Educate citizens about severe weather, including extreme heat, its potential impacts and opportunities for mitigation actions.		
Action 8.C.1	Working with the County, organize outreach to vulnerable populations, including promoting accessible cooling centers.	N/A
Action 8.C.2	Provide information on severe weather and mitigation strategies on the city's web site and via social media applications.	N/A
Action 8.C.3	Continue to maintain a database to track and notify vulnerable populations, including homebound residents and seniors, of severe weather events.	N/A

Goal 9: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to drought.		**Applies to New, Existing or Both**
Objective 9.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to drought.		
Action 9.A.1	Continue to promote water conservation as a means to mitigate future drought conditions (Municipal Code 23.26), including criteria for drought-related actions and updating of SDWD Drought Response Plan.	N/A
Objective 9.B: Protect existing assets with the highest relative vulnerability to the effects of drought.		
Action 9.B.1	Continue the use of reclaimed water for landscaping at city parks and facilities, where available.	BOTH
Action 9.B.2	Implement water efficiency upgrades at municipal buildings, parks and publicly owned facilities.	BOTH
Action 9.B.3	Explore options of public outreach, including providing residents with resources for water efficient plumbing and landscaping.	N/A
Objective 9.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate the effects of drought.		
Action 9.C.1	Support groundwater recycling efforts by San Elijo JPA.	BOTH
Action 9.C.2	Support regional efforts to diversify and improve water supply and delivery systems, including the construction of the Carlsbad desalination plant.	BOTH

Goal 9: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to drought.		**Applies to New, Existing or Both**
Action 9.C.3	Support OMWD water conservation initiatives, including the use of mandatory water restrictions as part of its drought response plan, when necessary.	N/A
Action 9.C.4	Continue to coordinate with other agencies to improve water reuse as part of the North County Water Reuse Coalition.	N/A
Action 9.C.5	Continue to work with State Water Resources Control Board, San Diego County Water Authority, Office of Emergency Services, SFID and OMWD to assess vulnerability to drought risk and monitor drought conditions.	N/A
Action 9.C.6	Support OMWDs efforts to extend recycled water to Village Park (through the conversion of Wiegand Tank) and possible conversion of Wankett Tank to recycled water tank as a regional project.	NEW
Action 9.C.7	Provide support for the implementation of ongoing Lake Hodges Water Quality Improvement Projects (Prop 84), which are important for improving the ability to transport local supplies in regional system.	NEW
Action 9.C.8	Remain informed of state legislation regarding drought and water conservation.	N/A
Objective 9.D: Educate citizens about drought, its potential impacts and opportunities for mitigation actions.		
Action 9.D.1	Continue to provide outreach materials to residences within the city for water conservation, in coordination with SFID and OMWD.	N/A
Action 9.D.2	Encourage residents to adopt drought tolerant landscaping or xeriscape practices to reduce dependence on irrigation.	N/A

5.8.5 Prioritization and Implementation of Action Items

Once the comprehensive list of jurisdictional goals, objectives, and action items listed above was developed, the proposed mitigation actions were prioritized. This step resulted in a list of acceptable and realistic actions that address the hazards identified in each jurisdiction. This prioritized list of action items was formed by the LPG weighing STAPLEE criteria.

The Disaster Mitigation Action of 2000 (at 44 CFR Parts 201 and 206) requires the development of an action plan that not only includes prioritized actions but one that includes information on how the prioritized actions will be implemented. Implementation consists of identifying who is responsible for which action, what kind of funding mechanisms and other resources are available or will be pursued, and when the action will be completed.

The prioritized actions below reflect progress in local mitigation efforts as well as changes in development.

The top 10 prioritized mitigation actions for 2015-2020 as well as an implementation strategy for each are:

Priority Action #1: **Beacon's Beach Bluff Stabilization**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and/or Grant Funding

Implementation Timeline: January 2015– 2020

Description: Over the years, Beacon's Beach bluff has been slowly eroding due to an unstable historic bluff landslide. Bluff erosion is also increasing due to storm and wave activity. A draft geotechnical feasibility study from URS was recently received for the project, which seeks to provide bluff stabilization, shoreline protection, and beach access.

Priority Action #2: **Highway 101 Bridge Replacement**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and Federal Highway Bridge Replacement Grant Funds

Implementation Timeline: January 2015– 2020

Description: A Seismic Vulnerability Study has been completed. The report concluded that the bridge (constructed in 1932) is susceptible to failure/collapse during a significant seismic event or tidal influx due to strong storms.

Priority Action Item #3 **Coastal Storm Damage Reduction (Beach Nourishment)**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Federal Grant

Implementation Timeline: October 2014 – December 2016

Description: The U.S. Army Corps of Engineers has partnered with the Cities of Encinitas and Solana Beach on a 50 year sand beach replenishment program intended to reduce the impacts of storm damage on the City's shoreline and bluff. Anticipated benefits include protection of public infrastructure (including Coast Highway 101) and privately owned structures, and a reduction in the risk of bluff failures, protecting public health and safety and restoring the shoreline.

Priority Action Item #4 **Moonlight Beach Marine Safety Center Reconstruction**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund

Implementation Timeline: January 2015– May 2017

Description: The existing lifeguard tower at Moonlight Beach was built around 1960. This project will replace the existing tower with a new facility that will meet current seismic safety codes and provide better protection from tsunamis.

Priority Action Item #5 **Cottonwood Creek Outfall Replacement**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and/or Grant Funds

Implementation Timeline: January 2015– 2020

Description: The existing corrugated metal pipe arches are deteriorating and two reinforced concrete pipes are blocked, causing flooding. These storm drain pipes will be replaced.

Priority Action Item #6 **El Camino Real Channel Drainage Improvement**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and Hazard Mitigation Grant Program Grant

Implementation Timeline: January 2015– 2020

Description: In 2005, heavy rains forced the closure of the intersection of El Camino Real at Leucadia Boulevard due to flooding. This project will provide creek restoration enhancements and necessary flood control protection (improved channel capacity) to reduce the potential for flooding and road closures at this heavily utilized intersection.

Priority Action Item #7 **Upgrade to Next Generation Regional Communications System (RCS)**

Coordinating Individual/Organization: City Manager's Office

Potential Funding Source: General Fund

Implementation Timeline: January 2016– January 2018

Description: The San Diego County–Imperial County RCS is an 800-MHz trunked, smart-zone system. It handles communications for 264 public safety agencies in both counties and is the daily operational system for some state and federal groups in the region. The RCS was placed in service in 1998 and is approaching the end of its useful life, after which the County will no longer be able to support and maintain the system. The Next Generation RCS will provide improved communication capabilities.

Priority Action #8 **Climate Action Plan Measure Review & Update**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Grant Funding (SDG&E)

Implementation Timeline: October 2014– January 2016

Description: Encinitas' Climate Action Plan (CAP) serves as a guiding document and outlines a course of action for community and municipal operations to reduce greenhouse gas (GHG) emissions and the lessen the potential impacts of climate change within the jurisdiction. This project involves a GHG inventory update and development of recommended revisions to the CAP.

Priority Action Item #9 **Leucadia 100 Year Storm Drainage System Improvements**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Grant Funding

Implementation Timeline: January 2015– 2020

Description: The coastal community of Leucadia has a chronic history of rainwater flooding. This occurs primarily in the vicinity of its main north-south routes, N. Coast Highway 101 and N. Vulcan Avenue. This long-term project is contingent on significant grant funding (due to its overall cost) and seeks to construct an underground storm drain system (using 3 phase conventional methods) along Highway 101 with the capacity to convey the peak flow rate from the 100 year frequency storm event.

Priority Action #10 **Cardiff-by-the-Sea Dune Restoration Project**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Grant Funding

Implementation Timeline: March 2015– 2017

Description: Construct a dune system fronting Coast Highway 101 to reduce the vulnerability of coastal infrastructure and natural resources in the region. Coastal dune systems provide multiple benefits in that they provide valuable habitat and coastal storm damage reduction during extreme events.

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Appendix K: Reduced Reliance on the Bay-Delta

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Reporting on Reduced Delta Reliance

Regulatory Background

Urban water suppliers that anticipate participating in or receiving water from a proposed project, such as a multiyear water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Sacramento-San Joaquin Delta (Delta) are required to demonstrate reduced reliance on the Delta in their 2015 and 2020 Urban Water Management Plans (UWMPs) that can then be used in the certification of consistency process to demonstrate consistency with Delta Plan Policy WR P1, *Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance* (California Code Regulations, Title 23, §5003).[1] The Delta Plan Policy WR P1 identifies UWMP as the tool to demonstrate consistency with the state policy that suppliers that carry out or take part in covered actions must reduce their reliance on the Delta.[2]

San Dieguito Water District's (District) information on its reduced reliance on the Delta is documented below and can be used in future certifications of consistency with WR P1 for potential future water supply covered actions in the Delta.

San Dieguito Water District Reliance on Delta Watershed

The District currently has two sources of potable water: purchased water from the San Diego County Water Authority (Water Authority), which includes both raw imported water and a blend of treated imported and desalinated seawater, and surface water from Lake Hodges. In 2020, approximately 55% of the District's potable water was supplied by the Water Authority. The Water Authority's imported water supplies are primarily sourced from the Colorado River via transfers from Imperial Irrigation District (IID), and from the State Water Project (SWP) and Central Valley Project (CVP) via Metropolitan Water District of Southern California (MWD).

The District's only imported water supplies that originate in the Delta watershed are imported water supplies delivered by the Water Authority via MWD. Recognizing that the Delta supplies are threatened by uncertain long-term reliability issues associated with drought shortages, climate change, seismic events, environmental impacts, and flow restrictions, and that imported water purchases are becoming increasingly expensive, the District has taken actions to reduce demand for imported water from the Water Authority as supplied by MWD, and is continuing to explore future opportunities to continue to reduce its reliance on imported water.

As part of its *Draft 2020 UWMP*, the Water Authority completed a Delta Reliance analysis to evaluate reduced Delta reliance consistent with Appendix C in the California Department of Water Resources' (DWR) *Draft UWMP Guidebook 2020* (DWR Guidebook). Given that the District's only potential source of water from the Delta watershed is water purchased from the Water Authority, the District relies on the Water Authority's Delta reliance analysis to also demonstrate reduced regional reliance on the Delta.

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[1] *Draft Urban Water Management Plan Guidebook 2020*, California Department of Water Resources, August 2020, p. C-1.

[2] *Ibid.*, p. C-2.

Water Authority Reduced Reliance on Delta Watershed

The Water Authority's *Draft 2020 UWMP* documents consistency with WR P1 by quantifying the water supplies that contribute to regional self-reliance and demonstrating reduced reliance on the Delta watershed, as summarized below.

Quantification of Water Supplies that Contribute to Regional Self-Reliance

Water suppliers must report the expected outcome for measurable improvement in regional self-reliance as a reduction in water used from the Delta watershed. **Table 1** lists the sources of water supplies and volumes that contribute to regional self-reliance.[3] As shown in the table, the Water Authority's reliance on the Delta watershed, and consequently the District's reliance on the Delta watershed, decreases over time as the percent of water supplies that contribute to regional self-reliance increase over time. The District's individual supplies that contribute to regional self-reliance can be found in Chapter 6 Water Supplies of the District's 2015 UWMP and Chapter 6 Water Supply Characterization in the District's 2020 UWMP.

Table 1 – Calculation of Supplies Contributing to Regional Self-Reliance

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Water Use Efficiency	79,960	6,737	74,141	62,411	66,921	73,035	81,625	85,698
Water Recycling	33,668	38,660	40,459	42,993	46,493	46,593	46,693	46,793
Stormwater Capture and Use	-	-	-	-	-	-	-	-
Advanced Water Technologies	-	-	56,000	56,000	56,000	56,000	56,000	56,000
Conjunctive Use Projects	-	-	-	-	-	-	-	-
Local and Regional Water Supply and Storage Projects	235,924	250,436	355,120	402,599	423,959	484,021	480,521	480,521
Other Programs and Projects the Contribute to Regional Self-Reliance	-	-	-	-	-	-	-	-
Water Supplies Contributing to Regional Self-Reliance	349,552	295,833	525,720	564,003	593,373	659,649	664,839	669,012

Service Area Water Demands without Water Use Efficiency	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Service Area Water Demands without Water Use Efficiency	795,410	654,022	661,722	618,169	645,165	671,509	695,860	716,469

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Water Supplies Contributing to Regional Self-Reliance	349,552	295,833	525,720	564,003	593,373	659,649	664,839	669,012
Change in Water Supplies Contributing to Regional Self-Reliance		(53,719)	176,168	214,451	243,821	310,097	315,287	319,460

Change in Percentage Regional Self Reliance (As a Percent of Water Demand without WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Percentage of Water Supplies Contributing to Regional Self-Reliance	43.9%	45.2%	79.4%	91.2%	92.0%	98.2%	95.5%	93.4%
Change in Percentage of Water Supplies Contributing to Regional Self-Reliance		102.9%	180.8%	207.6%	209.3%	223.5%	217.4%	212.5%

Demonstration of Reduced Reliance on Water Supplies from the Delta Watershed

Water suppliers are required to report on the expected outcomes for measurable reductions in water supplies from the Delta watershed. For the District, the only potential source of water from the Delta watershed is water purchased from the Water Authority via MWD. Because water provided by MWD to the Water Authority can include supplies that comingle Delta watershed and CVP supplies, the Water Authority (and therefore the District) must wholesale incorporate the MWD's forecast as a reasonable methodology to forecast the percent of MWD water supply from the Delta watershed and the CVP, at least until MWD provides the methodology approved by the DSC as anticipated. To serve as placeholder for this requirement, **Table 2** calculates the reduced reliance on the Delta watershed within the entirety of the MWD service area.[4]

[3] *Draft 2020 UWMP*, San Diego County Water Authority, March 2021, Appendix J, Table 2.

[4] *Draft 2020 UWMP*, Metropolitan Water District of Southern California, February 2021, Appendix 11, Table A.11-3.

Table 2 – Calculation of Reliance on Water Supplies from Delta Watershed [5]

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
CVP/SWP Contract Supplies	1,472,000	1,029,000	984,000	1,133,000	1,130,000	1,128,000	1,126,000	1,126,000
Delta/Delta Tributary Diversions	-	-	-	-	-	-	-	-
Transfers and Exchanges	20,000	44,000	91,000	58,000	52,000	52,000	52,000	52,000
Other Water Supplies from the Delta Watershed								
Total Water Supplies from the Delta Watershed	1,492,000	1,073,000	1,075,000	1,191,000	1,182,000	1,180,000	1,178,000	1,178,000
Service Area Water Demands without Water Use Efficiency	**Baseline (2010)**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045 (opt)**
Service Area Water Demands without Water Use Efficiency Savings	5,493,000	5,499,000	5,219,000	4,925,000	5,032,000	5,156,000	5,261,000	5,374,000
Change in Supplies from the Delta Watershed (Acre-Feet)	**Baseline (2010)**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045 (opt)**
Total Water Supplies from the Delta Watershed	1,492,000	1,073,000	1,075,000	1,191,000	1,182,000	1,180,000	1,178,000	1,178,000
Change in Water Supplies from the Delta Watershed		(419,000)	(417,000)	(301,000)	(310,000)	(312,000)	(314,000)	(314,000)
Change in Percentage of Supplies from the Delta Watershed (As a Percent of Water Demand w/out WUE)	**Baseline (2010)**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045 (opt)**
Percentage of Total Water Supplies from the Delta Watershed	27.2%	19.5%	20.6%	24.2%	23.5%	22.9%	22.4%	21.9%
Change in Percentage of Water Supplies from the Delta Watershed		-7.6%	-6.6%	-3.0%	-3.7%	-4.3%	-4.8%	-5.2%

The CVP/SWP contract supplies in **Table 2** include MWD's SWP Table A and Article 21 supplies.[6] The values in **Table 2** do not include supplies from San Luis Carryover storage or Central Valley storage programs. The transfers and exchanges of supplies from the Delta watershed shown in **Table 2** include supplies from the San Bernardino Valley MWD Program, Yuba River Accord Purchase Program, the San Gabriel Valley MWD Program, and other generic SWP and Central Valley transfers and exchanges. Additional information can be found in Section 3.2 and Appendix 3 of MWD's *Draft 2020 UWMP*.[7]

[5] Metropolitan Water District of Southern California, *Draft 2020 UWMP*, February 2021, Appendix 11, Table A.11-3.
[6] *Ibid.*, p. A.11-7.
[7] *Ibid.*, pgs. A.11-7 – 11-8.

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Appendix L: District Notice of Public Hearing

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CITY OF ENCINITAS DEVELOPMENT SERVICES DEPARTMENT LEGAL NOTICE OF PUBLIC HEARING BY THE PLANNING COMMISSION & NOTICE OF AVAILABILITY PLACE OF MEETING: Council Chambers, Civic Center 505 S. Vulcan Avenue Encinitas, CA 92024 IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT/SECTION 504 REHABILITATION ACT OF 1973 AND TITLE VI, THIS AGENCY IS AN EQUAL OPPORTUNITY PUBLIC ENTITY AND DOES NOT DISCRIMINATE ON THE BASIS OF RACE, COLOR, ETHNIC ORIGIN, NATIONAL ORIGIN, SEX, RELIGION, VETERANS STATUS OR PHYSICAL OR MENTAL DISABILITY IN EMPLOYMENT OR THE PROVISION OF SERVICE. IF YOU REQUIRE SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE DEVELOPMENT SERVICES DEPARTMENT AT (760) 633-2710 AT LEAST 72 HOURS PRIOR TO THE MEETING. PURSUANT TO THE STATE OF CALIFORNIA EXECUTIVE ORDERS AND AMENDED COUNTY HEALTH ORDERS, MEMBERS OF THE PUBLIC WILL ONLY BE ALLOWED TO PARTICIPATE IN MEETINGS ELECTRONICALLY. PUBLIC COMMENT PRIOR TO THE MEETING: to submit a comment in writing, email planning@encinitasca.gov and include the agenda item number and/or title of the item in the subject line. If the comment is not related to an agenda item, indicate oral communication in the subject line. All e-mail comments received by 3:00 p.m. on the day of the meeting will be emailed to the planning commission members and made a part of the official record. Please note, e-mail comments received prior to the meeting will no longer be read at the meeting. PUBLIC COMMENT DURING THE MEETING (INCLUDING ORAL COMMUNICATIONS, AND COMMENTS RELATED TO CONSENT CALENDAR ITEMS AND ACTION ITEMS): to provide public comment during the meeting, you must register by 2:00 p.m. on the day of the meeting to join the planning commission meeting webinar. You do not need to register to watch but must register if you wish to speak. Members of the public will not be shown on video; they will be able to watch and listen, and to speak when called upon. Each speaker is allowed three (3) minutes to address the planning commission. Please be aware that the Planning secretary has the authority to reduce equally each speaker's time to accommodate a larger number of speakers. All comments are subject to the same rules as would otherwise govern speaker comments at the meeting. Speakers are asked to be respectful and courteous. Please address your comments to the planning commission as a whole and avoid personal attacks against members of the public, commissioners, and city staff. To register to speak at this meeting, go to the Agenda for this meeting found on the City's website at: https://encinitasca.gov/Government/Agendas-Webcasts. A link will be provided at the time of agenda posting for registering to speak. It is hereby given that a **Public Hearing will be held on Thursday, the 6th day of May, 2021, at 6:00 p.m.**, or as soon as possible thereafter, by the Encinitas Planning Commission to discuss the following hearing item of the City of Encinitas: **CASE NUMBER:** PLCY-004445-2021 (ZA/LCPA – Parking Regulation Amendments) **APPLICANT:** City of Encinitas; **LOCATION:** City-wide; **PROJECT DESCRIPTION:** Public hearing to consider proposed amendments to Title 30 - Zoning of the Encinitas Municipal Code relating to parking standards for inclusionary units, senior housing, transit-oriented development, and tandem parking. Amendments being considered to Title 30 of the Municipal Code include amending Chapter 30.04 (Definitions) and Chapter 30.54 (Off-Street Parking). Title 30 of the Municipal Code is a component of the Local Coastal Program (LCP); therefore, the LCP would also be amended as part of this application. **ENVIRONMENTAL STATUS:** The proposed amendments to the Encinitas Municipal Code are exempt from environmental review pursuant to General Rule, Section 15061(b)(3) of the California Environmental Quality Act (CEQA) Guidelines since there would be no possibility of a significant effect on the environment. **STAFF CONTACT:** Nick Zornes, Planner IV: 760-633-2711 or nzornes@encinitasca.gov. The Planning Commission will be making a recommendation on the item to the City Council. The City Council will consider the item at a separately noticed public hearing. This project constitutes an amendment to the Local Coastal Program (LCP). If the City Council approves the amendment, the proposed LCP amendment must be submitted to the California Coastal Commission for review and adoption. The LCP amendment will not become effective until after adoption by the California Coastal Commission. **This Notice of Availability opens a six-week public review period (April 16, 2021 through May 28, 2021) and is required to elapse prior to any final action being taken by the City Council on the LCP amendment request.** The proposed ordinance is available for review on the City's website at https://encinitasca.gov/I-Want-To/Public-Notices/Development-Services-Public-Notices under "Planning Commission Hearing Notices." Due to the COVID-19 outbreak, effective March 18, 2020, all City facilities are closed to the public. Hard copies will be mailed upon request. Should City facilities re-open during the public review period, it will also be available for review at the City of Encinitas Development Services Department: Encinitas Civic Center, 505 South Vulcan Avenue, Encinitas, CA 92024. Copies will also be available at City Hall, Encinitas and Cardiff Libraries, and the Senior and Community Center during normal business hours, once open to the public. Under California Government Code Section 65009, if you challenge the nature of the proposed action in court, you may be limited to raising only the issues you or someone else raised regarding the matter described in this notice or written correspondence delivered to the City at or before the time and date of the determination. For further information, or to review the application prior to the hearing, please contact staff or contact the Development Services Department, 505 South Vulcan Avenue, Encinitas, CA 92024 at (760) 633-2710 or by email at planning@encinitasca.gov. 04/16/2021 CN 25285

SAN DIEGUITO WATER DISTRICT
PUBLIC HEARING NOTICE
2020 URBAN WATER MANAGEMENT PLAN

Notice is hereby given that on **May 19, 2021** at **5 PM** at the City Council Chambers, 505 South Vulcan Avenue, Encinitas, California 92024, the San Dieguito Water District Board will conduct a public hearing on the Draft 2020 Urban Water Management Plan (UWMP), Water Shortage Contingency Plan (WSCP), and consider an Addendum to the 2015 UWMP to address Delta Reliance. **Pursuant to the State of California Executive Orders and amended County Health Order, members of the public will only be allowed to participate in meetings electronically.** Please refer to the instructions provided on the posted agenda to participate.

In compliance with California Water Code (§10610-10656, §10608 and §10632) the UWMP and WSCP are required to contain detailed evaluations of the water supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. The District is required by the Urban Water Management Planning Act to prepare a plan every five years. The District is required to formally update and adopt a plan by July 1, 2021 for submittal to the California Department of Water Resources

The Draft 2020 UWMP will be available for public review starting **April 19, 2021 at the City of Encinitas/San Dieguito Water District's** website at https://encinitasca.gov/Government/Departments/San-Dieguito-Water-District/Engineering-Planning. Any questions or comments regarding the Draft 2020 UWMP must be received by the District before noon on May 19, 2021 and should be directed to: San Dieguito Water District at 160 Calle Magdalena, Encinitas, California 92024, Attention: Blair Knoll, or emailed to Bknoll@SDWD.Org. Members of the public will also be able to provide public comments at the hearing.

Upon conclusion of the public hearing, the District Board may revise, change, or modify the Draft 2020 UWMP, WSCP, and Addendum to the 2015 UWMP. The 2020 UWMP, WSCP, and Addendum to the 2015 UWMP are scheduled to be adopted in May 2021.

04/16/2021, 04/23/2021 CN 25287

NOTICE INVITING BIDS
CITY OF ENCINITAS
MacKinnon ADA Sidewalk Improvements (CS20D)

Notice is hereby given that the City of Encinitas will receive ELECTRONIC BIDS ONLY, via the on-line bidding service PlanetBids, up to 2:00 p.m., on April 28, 2021. The bid results will be posted on PlanetBids immediately at close of solicitation.

WORK TO BE DONE: The work to be done generally includes:

The work to be done is located on MacKinnon Ave, Cardiff, CA 92007. The work to be completed involves clearing and grubbing, site preparation, grading, concrete curb & gutter, public & private concrete driveways, concrete sidewalks, asphalt pavement, traffic striping and markings, water meter box and mailbox installations. The Contractor shall complete the proposed work in its entirety. Should any detail or details be omitted from the Contract Documents which are essential to its functional completeness, then it shall be the responsibility of the Contractor to furnish and install such detail or request such details from the City Engineer so that upon completion of the proposed work, the work will be acceptable and ready for use.

Engineer's Estimate - $331,700

LOWEST RESPONSIVE AND RESPONSIBLE BIDDER: All bids are to be compared on the basis of the City Engineer's estimate of the quantities of work to be done and the unit prices bid by the bidder. The award of the contract, if it is awarded, will be to the responsive and responsible bidder submitting a Bid whose summation of the base bid and the five additive alternative bids is the lowest. Pursuant to Public Contract Code Section 1103, a "Responsible Bidder", means a bidder who has demonstrated the attributes of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform this public works contract.

OBTAINING CONTRACT DOCUMENTS: The website for this advertisement and related documents is PlanetBids (**http://www.encinitasca.gov/bids**). All bid documents and project correspondence will be posted on the PlanetBids website. It is the responsibility of Proposed Bidders to check the website regularly for information updates and Bid Clarifications, as well as any addenda. To submit a bid, a bidder must be registered with the City of Encinitas as a vendor. To register as a vendor, go to **http://www.encinitasca.gov/bids** and then proceed to the "Register as a Vendor" link. The City makes no representation regarding the accuracy of Contract Documents received from third party plan rooms and Contractor accepts bid documents from third parties at its own risk.

Should contractors choose to pick up project plans and specifications at Plan Rooms, the contractors shall still be responsible for obtaining all addenda for the project and signing and submitting all addendums with their bid. Any contractor that does not acknowledge receipt of all addendums by signing and submitting all addendums with their bid shall be deemed a non-responsive bidder and their bid will be rejected.

PREVAILING WAGE: This is a prevailing wage project and prevailing wage rates for this locality and project as determined by the Director of Industrial Relations apply, pursuant to labor code section 1770, et. Seq. A copy of the prevailing wage rates shall be posted on the job site by the contractor. A schedule of prevailing wage rates is available for review at the California Department of Industrial Relations web site found on the internet at **http://www.dir.ca.gov/Public-Works/Prevailing-Wage.html**. The successful bidder shall be required to pay at least the wage rates set forth in that schedule. Certified Payroll records shall be maintained by the contractor and copies of the certified payroll shall be electronically sent to the Department of Industrial Relations and be delivered to the City at the end of each month during the entire duration of the project.

Notice: Subject to exceptions as set forth in Labor Code section 1771.1, contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined by statute, unless it is currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. The City may not accept a bid nor any contract or subcontract entered into without proof of the contractor or subcontractor's current registration to perform public work pursuant to Section 1725.5. For more information, go to **http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html**

COMPLIANCE WITH LABOR LAWS: The prime contractor shall be responsible for insuring compliance with all applicable provisions of the Labor Code, including, but not limited to, section 1777.5.

Please also see **INFORMATION AND INSTRUCTIONS FOR BIDDERS** in bid documents for additional bid information and requirements.

City of Encinitas

BY: Edward J. Wimmer, PE City Engineer DATE: 03/28/2021

END OF NOTICE INVITING BIDS

04/09/2021, 04/16/2021 CN25264

T.S. No. 17-49314 A P N : 216-160-03-00 **NOTICE OF TRUSTEE'S SALE YOU ARE IN DEFAULT UNDER A DEED OF TRUST DATED 6/21/2006. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER.** A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, or savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state will be held by the duly appointed trustee as shown below, of all right, title, and interest conveyed to and now held by the trustee in the hereinafter described property under and pursuant to a Deed of Trust described below. The sale will be made, but without covenant or warranty, expressed or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, under the terms of the Deed of Trust, interest thereon, fees, charges and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be set forth below. The amount may be greater on the day of sale. Trustor: **ANDRE WILLIAMS, A MARRIED MAN, AS HIS SOLE AND SEPARATE PROPERTY** Duly Appointed Trustee: ZBS Law, LLP Deed of Trust recorded 6/30/2006, as Instrument No. 2006-0465544, of Official Records in the office of the Recorder of San Diego County, California, Date of Sale: **5/7/2021** at 9:00 AM Place of Sale: Entrance of the East County Regional Center, East County Regional Center, 250 E. Main Street, El Cajon, CA 92020 Estimated amount of unpaid balance and other charges: **$1,730,674.76** Note: Because the Beneficiary reserves the right to bid less than the total debt owed, it is possible that at the time of the sale the opening bid may be less than the total debt owed. Street Address or other common designation of real property: **2408 LA COSTA AVENUE CARLSBAD, California 92009** Described as follows: As more fully described on said Deed of Trust. A.P.N #.: **216-160-03-00** The undersigned Trustee disclaims any liability for any incorrectness of the street address or other common designation, if any, shown above. If no street address or other common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off, before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call (855) 976-3916 or visit this Internet Web site www.auction.com, using the file number assigned to this case 17-49314. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. NOTICE TO TENANT: You may have a right to purchase this property after the trustee auction pursuant to Section 2924m of the California Civil Code. If you are an "eligible tenant buyer," you can purchase the property if you match the last and highest bid placed at the trustee auction. If you are an "eligible bidder," you may be able to purchase the property if you exceed the last and highest bid placed at the trustee auction. There are three steps to exercising this right of purchase. First, 48 hours after the date of the trustee sale, you can call (855) 976-3916, or visit this internet website tracker.auction.com/sb1079, using the file number assigned to this case 17-49314 to find the date on which the trustee's sale was held, the amount of the last and highest bid, and the address of the trustee. Second, you must send a written notice of intent to place a bid so that the trustee receives it no more than 15 days after the trustee's sale. Third, you must submit a bid so that the trustee receives it no more than 45 days after the trustee's sale. If you think you may qualify as an "eligible tenant buyer" or "eligible bidder," you should consider contacting an attorney or appropriate real estate professional immediately for advice regarding this potential right to purchase. Dated: **3/30/2021 ZBS Law, LLP, as Trustee 30 Corporate Park, Suite 450 Irvine, CA 92606 For Non-Automated Sale Information, call: (714) 848-7920 For Sale Information: (855) 976-3916 www.auction.com Michael Busby, Trustee Sale Officer** This office is enforcing a security interest of your creditor. To the extent that your obligation has been discharged by a bankruptcy court or is subject to an automatic stay of bankruptcy, this notice is for informational purposes only and does not constitute a demand for payment or any attempt to collect such obligation. EPP 36269 4/9, 4/16, 4/23/2021.
CN 25266

T.S. No. 082373-CA APN: 177-282-08-00 NOTICE OF TRUSTEE'S SALE IMPORTANT NOTICE TO PROPERTY OWNER: YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED 6/10/2005. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER On 4/26/2021 at 1:00 PM, CLEAR RECON CORP, as duly appointed trustee under and pursuant to Deed of Trust recorded 6/15/2005 as Instrument No. 2005-0500817 of Official Records in the office of the County Recorder of San Diego County, State of CALIFORNIA executed by: ANGELICA RAMIREZ AND MANUEL RAMIREZ, WIFE AND HUSBAND WILL SELL AT PUBLIC AUCTION TO HIGHEST BIDDER FOR CASH, CASHIER'S CHECK DRAWN

LEGALS LEGALS LEGALS LEGALS LEGALS LEGALS LEGALS

SAN DIEGUITO WATER DISTRICT
PUBLIC HEARING NOTICE
2020 URBAN WATER MANAGEMENT PLAN

Notice is hereby given that on **May 19, 2021** at **5 PM** at the City Council Chambers, 505 South Vulcan Avenue, Encinitas, California 92024, the San Dieguito Water District Board will conduct a public hearing on the Draft 2020 Urban Water Management Plan (UWMP), Water Shortage Contingency Plan (WSCP), and consider an Addendum to the 2015 UWMP to address Delta Reliance. **Pursuant to the State of California Executive Orders and amended County Health Order, members of the public will only be allowed to participate in meetings electronically.** Please refer to the instructions provided on the posted agenda to participate.

In compliance with California Water Code (§10610-10656, §10608 and §10632) the UWMP and WSCP are required to contain detailed evaluations of the water supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. The District is required by the Urban Water Management Planning Act to prepare a plan every five years. The District is required to formally update and adopt a plan by July 1, 2021 for submittal to the California Department of Water Resources

The Draft 2020 UWMP will be available for public review starting **April 19, 2021 at the City of Encinitas/San Dieguito Water District's** website at https://encinitasca.gov/Government/Departments/San-Dieguito-Water-District/Engineering-Planning. Any questions or comments regarding the Draft 2020 UWMP must be received by the District before noon on May 19, 2021 and should be directed to: San Dieguito Water District at 160 Calle Magdalena, Encinitas, California 92024, Attention: Blair Knoll, or emailed to Bknoll@SDWD.Org. Members of the public will also be able to provide public comments at the hearing.

Upon conclusion of the public hearing, the District Board may revise, change, or modify the Draft 2020 UWMP, WSCP, and Addendum to the 2015 UWMP. The 2020 UWMP, WSCP, and Addendum to the 2015 UWMP are scheduled to be adopted in May 2021.

04/16/2021, 04/23/2021 CN 25287

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note(s), advances, if any, under the terms of the Deed of Trust. The total amount of the unpaid balance of the obligation secured by the property to be sold and reasonable estimated fees, charges and expenses of the Trustee and of the trusts created by said Deed of Trust. **IN ORDER TO BRING YOUR ACCOUNT CURRENT, PLEASE CONTACT ADVANCED FINANCIAL COMPANY AT PHONE NO. 800-234-6222 EXT 189.** DATE: 4/19/2021 CHICAGO TITLE COMPANY, AS TRUSTEE 2121 PALOMAR AIRPORT ROAD, SUITE 330B CARLSBAD, CA 92011 PHONE NO. (858) 207-0646 BY LORI R. FLEMINGS, as Authorized Signor. 04/23//2021, 04/30/2021, 05/07/2021 CN 25299

T.S. No. 17-49314 A P N : 216-160-03-00 **NOTICE OF TRUSTEE'S SALE YOU ARE IN DEFAULT UNDER A DEED OF TRUST DATED 6/21/2006. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER.** A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, or savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state will be held by the duly appointed trustee as shown below, of all right, title, and interest conveyed to and now held by the trustee in the hereinafter described property under and pursuant to a Deed of Trust described below. The sale will be made, but without covenant or warranty, expressed or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, under the terms of the Deed of Trust, interest thereon, fees, charges and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be set forth below. The amount may be greater on the day of sale. Trustor: **ANDRE WILLIAMS, A MARRIED MAN, AS HIS SOLE AND SEPARATE PROPERTY** Duly Appointed Trustee: ZBS Law, LLP Deed of Trust recorded 6/30/2006, as Instrument No. 2006-0465544, of Official Records in the office of the Recorder of San Diego County, California, Date of Sale: **5/7/2021** at 9:00 AM Place of Sale: Entrance of the East County Regional Center, East County Regional Center, 250 E. Main Street, El Cajon, CA 92020 Estimated amount of unpaid balance and other charges: **$1,730,674.76** Note: Because the Beneficiary reserves the right to bid less than the total debt owed, it is possible that at the time of the sale the opening bid may be less than the total debt owed. Street Address or other common designation of real property: **2408 LA COSTA AVENUE CARLSBAD, California 92009** Described as follows: As more fully described on said Deed of Trust. A.P.N #.: **216-160-03-00** The undersigned Trustee disclaims any liability for any incorrectness of the street address or other common designation, if any, shown above. If no street address or other common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. 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If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call (855) 976-3916 or visit this Internet Web site www.auction.com, using the file number assigned to this case 17-49314. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. NOTICE TO TENANT: You may have a right to purchase this property after the trustee auction pursuant to Section 2924m of the California Civil Code. If you are an "eligible tenant buyer," you can purchase the property if you match the last and highest bid placed at the trustee auction. If you are an "eligible bidder," you may be able to purchase the property if you exceed the last and highest bid placed at the trustee auction. There are three steps to exercising this right of purchase. First, 48 hours after the date of the trustee sale, you can call (855) 976-3916, or visit this internet website tracker.auction.com/sb1079, using the file number assigned to this case 17-49314 to find the date on which the trustee's sale was held, the amount of the last and highest bid, and the address of the trustee. Second, you must send a written notice of intent to place a bid so that the trustee receives it no more than 15 days after the trustee's sale. Third, you must submit a bid so that the trustee receives it no more than 45 days after the trustee's sale. If you think you may qualify as an "eligible tenant buyer" or "eligible bidder," you should consider contacting an attorney or appropriate real estate professional immediately for advice regarding this potential right to purchase. Dated: **3/30/2021 ZBS Law, LLP, as Trustee 30 Corporate Park, Suite 450 Irvine, CA 92606 For Non-Automated Sale Information, call: (714) 848-7920 For Sale Information: (855) 976-3916 www.auction.com Michael Busby, Trustee Sale Officer** This office is enforcing a security interest of your creditor. To the extent that your obligation has been discharged by a bankruptcy court or is subject to an automatic stay of bankruptcy, this notice is for informational purposes only and does not constitute a demand for payment or any attempt to collect such obligation. EPP 36269 4/9, 4/16, 4/23/2021.
CN 25266

ORDER TO SHOW CAUSE FOR CHANGE OF NAME CASE# 37-2021-00016175-CU-PT-NC TO ALL INTERESTED PERSONS: Petitioner(s): **Debra Kay Pixler, aka Debra Kay Pagel, aka Debra Kay Fay, aka Debra Kay Burns, aka Debra Kay Hall, aka Debra Kay Kitson** filed a petition with this court for a decree changing name as follows: a. Present name: **Debra Kay Pixler, aka Debra Kay Pagel, aka Debra Kay Fay, aka Debra Kay Burns, aka Debra Kay Hall, aka Debra Kay Kitson** change to proposed name: **Debra Kay Kitson**. THE COURT ORDERS that all persons interested in this matter appear before this Court at the hearing indicated below to show cause, if any, why the petition for a change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing. **NOTICE OF HEARING: On Jun 01, 2021 at 8:30 a.m., in Dept. 25 of the Superior Court of California, 325 S Melrose Dr., Vista CA 92081, North County Regional Division. NO HEARING WILL OCCUR ON THE ABOVE DATE; ATTACHMENT TO ORDER TO SHOW CAUSE FOR CHANGE OF NAME (JC FORM #NC-120) Due to the COVID-19 pandemic, which poses a substantial risk to the health and welfare of court personnel and the public, rendering presence in, or access to, the court's facilities unsafe, and pursuant to the emergency orders of the Chief Justice of the State of California and General Orders of the Presiding Department of the San Diego Superior Court, the following Order is made: NO HEARING WILL OCCUR ON THE DATE SPECIFIED IN THE ORDER TO SHOW CAUSE.** The court will review the documents filed as of the date specified on the Order to Show Cause for Change of Name (JC Form #NC-120). **If all requirements for a name change have been met** as of the date specified, and no timely written objection has been received (required at least two court days before the date specified), the Petition for Change of Name (JC Form #NC-100) will be granted without a hearing. One certified copy of the Order Granting the Petition will be mailed to the petitioner. **If all the requirements have not been met** as of the date specified, the court will mail the petitioner a written order with further directions. **If a timely objection is filed,** the court will set a remote hearing date and contact the parties by mail with further directions. **A RESPONDENT OBJECTING TO THE NAME CHANGE MUST FILE A WRITTEN OBJECTION AT LEAST TWO COURT DAYS** (excluding weekends and holidays) **BEFORE THE DATE SPECIFIED. Do not come to court on the specified date. The court will notify the parties by mail of a future remote hearing date. Any Petition for the name change of a minor that is signed by only one parent must have this Attachment served along with the Petition and Order to Show Cause, on the other non-signing parent, and proof of service must be filed with the court. IT IS SO ORDERED.** Date: Apr 13, 2021 Pamela M. Parker Judge of the Superior Court. 04/23, 04/30, 05/07, 05/14/2021 CN 25317

NOTICE OF LIEN SALE
Notice is hereby given pursuant to Sections 3071 and 3072 of the Civil Code of the State of California that **First Platinum Properties** located at 5031 Shore Drive, Carlsbad, CA 92008, will sell at public auction on **May 4, 2021**, at 10:00 A.M. the following: 2014 Ford Focus; Lic.# 8FSG058; VIN; 1FADP3J20EL195124. Said sale is for the purpose of satisfying a lien of **First Platinum Properties** in the amount of $8,725.00 together with the costs of advertising and expenses of sale.
04/23/2021 CN 25293

ORDER TO SHOW CAUSE FOR CHANGE OF NAME CASE# 37-2021-00013912-CU-PT-CTL TO ALL INTERESTED PERSONS: Petitioner(s): **Gayle Lynn Rogers** filed a petition with this court for a decree changing name as follows: a. Present name: **Gayle Lynn Rogers** change to proposed name: **Galina Azul Rodriguez**. THE COURT ORDERS that all persons interested in this matter appear before this Court at the hearing indicated below to show cause, if any, why the petition for a change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing. **NOTICE OF HEARING: On May 18, 2021 at 8:30 a.m., in Dept. 61 of the Superior Court of California, 330 W. Broadway, San Diego CA 92101, Hall of Justice. NO HEARING WILL OCCUR ON THE ABOVE DATE; ATTACHMENT TO ORDER TO SHOW CAUSE FOR CHANGE OF NAME (JC FORM #NC-120) Due to the COVID-19 pandemic, which poses a substantial risk to the health and welfare of court personnel and the public, rendering presence in, or access to, the court's facilities unsafe, and pursuant to the emergency orders of the Chief Justice of the State of California and General Orders of the Presiding Department of the San Diego Superior Court, the following Order is made: NO HEARING WILL OCCUR ON THE DATE SPECIFIED IN THE ORDER TO SHOW CAUSE.** The court will review the documents filed as of the date specified on the Order to Show Cause for Change of Name (JC Form #NC-120). **If all requirements for a name change have been met** as of the date specified, and no timely written objection has been received (required at least two court days before the date specified), the Petition for Change of Name (JC Form #NC-100) will be granted without a hearing. One certified copy of the Order Granting the Petition will be mailed to the petitioner. **If all the requirements have not been met** as of the date specified, the court will mail the petitioner a written order with further directions. **If a timely objection is filed,** the court will set a remote hearing date and contact the parties by mail with further directions. **A RESPONDENT OBJECTING TO THE NAME CHANGE MUST FILE A WRITTEN OBJECTION AT LEAST TWO COURT DAYS** (excluding weekends and holidays) **BEFORE THE DATE SPECIFIED. Do not come to court on the specified date. The court will notify the parties by mail of a future remote hearing date. Any Petition for the name change of a minor that is signed by only one parent must have this Attachment served along with the Petition and Order to Show Cause, on the other non-signing parent, and proof of service must be filed with the court. IT IS SO ORDERED.** Date: Apr. 01, 2021 Lorna A. Alksne Judge of the Superior Court. 04/09, 04/16, 04/23, 04/30/2021 CN 25271

SUMMONS CASE #: 37-2020-00039293-CU-MM-CTL CIVIL CASE Unlimited Medical Malpractice NOTICE TO DEFENDANT: **ALLYSON PACE DAVIS, M.D., SALLY LANG, CNM and DOES 1 through 20 Inclusive,**
YOU ARE BEING SUED BY PLAINTIFF: **SAMANTHA ERICKSON AND GORMAN ERICKSON**
NOTICE OF CASE ASSIGMENT and CASE MANAGEMENT CONFERNCE. CASE ASSIGNED FOR ALL PURPOSES TO: Judge: John S. Meyer; Department: C-64. **COMPLAINT/PETITION FILED:** 10/29/2020 **TYPE OF HEARING SCHEDULED** Civil Case Management Conference **DATE:** 07/09/2021 **TIME:** 09:30 AM **DEPT:** C-64 **JUDGE:** John S. Meyer.
Due to the COVID-19 pandemic, all hearings will be conducted remotely until further notice. Absent an order of the court, personal appearances at the hearing will not be allowed. For information on arranging telephonic or video appearances, contact CourtCall at (888) 882-6878, or at www.courtcall.com.
NOTICE! You have been sued. The court may decide against you without your being heard unless you respond within 30 days. Read the information below. You have 30 CALENDAR DAYS after this summons and legal papers are served on you to file a written response at this court and have a copy served on the plaintiff. A letter or phone call will not protect you. Your written response must be in proper legal form if you want the court to hear your case. There may be a court form that you can use for your response. You can find these court forms and more information at the California Courts Online Self-Help Center (*www.courtinfo.ca.gov/selfhelp*), your county law library, or the courthouse nearest you. If you cannot pay the filing fee, ask the court clerk for a fee waiver form. If you do not file your response on time, you may lose the case by default, and your wages, money, and property may be taken without further warning from the court. There are other legal requirements. You may want to call an attorney right away. If you do not know an attorney, you may want to call an attorney referral service. If you cannot afford an attorney, you may be eligible for free legal services from a nonprofit legal services program. You can locate these nonprofit groups at the California Legal Services Web site (*www.lawhelpcalifornia.org*), the California Courts Online Self-Help Center (*www.courtinfo.ca.gov/selfhelp*), or by contacting your local court or county bar association.
Superior Court of California
County of San Diego
330 W Broadway
San Diego CA 92101-3827
Central Branch
04/09, 04/16, 04/23, 04/30/2021
CN 25267

ORDER TO SHOW CAUSE FOR CHANGE OF NAME CASE# 37-2021-00012778-CU-PT-NC TO ALL INTERESTED PERSONS: Petitioner(s): **Cathy Rose Petrone** filed a petition with this court for a decree changing name as follows: a. Present name: **Cathy Rose Petrone** change to proposed name: **Cathirose Petrone**. THE COURT ORDERS that all persons interested in this matter appear before this Court at the hearing indicated below to show cause, if any, why the petition for a change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing. **NOTICE OF HEARING: On May 11, 2021 at 8:30 a.m., in Dept. 25 of the Superior Court of California, 325 S Melrose Dr., Vista CA 92081, North County Regional Division. NO HEARING WILL OCCUR ON THE ABOVE DATE; ATTACHMENT TO ORDER TO SHOW CAUSE FOR CHANGE OF NAME (JC FORM #NC-120) Due to the COVID-19 pandemic, which poses a substantial risk to the health and welfare of court personnel and the public, rendering presence in, or access to, the court's facilities unsafe, and pursuant to the emergency orders of the Chief Justice of the State of California and General Orders of the Presiding Department of the San Diego Superior Court, the following Order is made: NO HEARING WILL OCCUR ON THE DATE SPECIFIED IN THE ORDER TO SHOW CAUSE.** The court will review the documents filed as of the date specified on the Order to Show Cause for Change of Name (JC Form #NC-120). **If all requirements for a name change have been met** as of the date specified, and no timely written objection has been received (required at least two court days before the date specified), the Petition for Change of Name (JC Form #NC-100) will be granted without a hearing. One certified copy of the Order Granting the Petition will be mailed to the petitioner. **If all the requirements have not been met** as of the date specified, the court will mail the petitioner a written order with further directions. **If a timely objection is filed,** the court will set a remote hearing date and contact the parties by mail with further directions. **A RESPONDENT OBJECTING TO THE NAME CHANGE MUST FILE A WRITTEN OBJECTION AT LEAST TWO COURT DAYS** (excluding weekends and holidays) **BEFORE THE DATE SPECIFIED. Do not come to court on the specified date. The court will notify the parties by mail of a future remote hearing date. Any Petition for the name change of a minor *that is signed by only one parent* must have this Attachment served along with the Petition and Order to Show Cause, on the other non-signing parent, and proof of service must be filed with the court. IT IS SO ORDERED.** Date: Mar 23, 2021 Pamela M. Parker Judge of the Superior Court. 04/02, 04/09, 04/16, 04/23/2021 CN 25251

ORDER TO SHOW CAUSE FOR CHANGE OF NAME CASE# 37-2021-00012930-CU-PT-NC TO ALL INTERESTED PERSONS: Petitioner(s): **Cynthia Gail Parker-White** filed a petition with this court for a decree changing name as follows: a. Present name: **Cynthia Gail Parker-White** change to proposed

Coast News legals continued on page B4

The Coast News

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Space above for County Clerk's Filing Stamp

Proof of Publication

STATE OF CALIFORNIA, ss.
COUNTY OF SAN DIEGO,

I am a citizen of the United States and a resident of the county aforesaid;

I am over the age of eighteen years, and not a party to or interested in the above entitled matter.

I am principal clerk of the printer of The Coast News, a newspaper printed and published weekly and which newspaper has been adjudged a newspaper of general circulation for the cities of Carmel Valley, Del Mar, Solana Beach, Encinitas/Cardiff, Carlsbad, Oceanside, Rancho Santa Fe, Vista, San Marcos, Escondido, the County of San Diego and the County Judicial District by the Superior Court of the State of California, County of San Diego (8/4/94, #677114, B2393, P396); and that the notice, of which the annexed is a printed copy, has been published in, each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

April 16, 23, 2021

I certify under penalty of perjury that the foregoing is true and correct. Executed at Encinitas, County of San Diego, State of California on this 23rd of April 2021.

Clerk of the Printer

SAN DIEGUITO WATER DISTRICT
PUBLIC HEARING NOTICE
2020 URBAN WATER MANAGEMENT PLAN

Notice is hereby given that on May 19, 2021 at 5 PM at the City 505 South Vulcan Avenue, Encinitas, California 92024, the San Dieg Board will conduct a public hearing on the Draft 2020 Urban Water (UWMP), Water Shortage Contingency Plan (WSCP), and conside the 2015 UWMP to address Delta Reliance. Pursuant to the Stat ecutive Orders and amended County Health Order, members of t be allowed to participate in meetings electronically. Please refer provided on the posted agenda to participate.

In compliance with California Water Code (§10610-10656, §1060 UWMP and WSCP are required to contain detailed evaluations of necessary to reliably meet demands over at least a 20-year period dry years. The District is required by the Urban Water Manageme prepare a plan every five years. The District is required to formall a plan by July 1, 2021 for submittal to the California Department o

The Draft 2020 UWMP will be available for public review starting A City of Encinitas/San Dieguito Water District's website at https://e ernment/Departments/San-Dieguito-Water-District/Engineering-Pla tions or comments regarding the Draft 2020 UWMP must be recei before noon on May 19, 2021 and should be directed to: San Dieguit 160 Calle Magdalena, Encinitas, California 92024, Attention: Blai to Bknoll@SDWD.Org. Members of the public will also be able to p ments at the hearing.

Upon conclusion of the public hearing, the District Board may revi ify the Draft 2020 UWMP, WSCP, and Addendum to the 2015 UWM WSCP, and Addendum to the 2015 UWMP are scheduled to be ado

04/16/2021, 04

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Appendix M: District Agenda and Agenda Report for Public Review and Adoption Hearing

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AGENDA REPORT
San Dieguito Water District

MEETING DATE:	May 19, 2021	**INTERIM GENERAL MANAGER:**	Isam Hireish
PREPARED BY:	Blair A. Knoll	**CITY MANAGER:**	Pamela Antil

SUBJECT:

Public Hearing Regarding San Dieguito Water District's 2020 Urban Water Management Plan, Water Shortage Contingency Plan, and Addendum to the 2015 Urban Water Management Plan to Include Reduction to the Bay-Delta Reliance Appendix.

RECOMMENDED ACTION:

District Board takes the following actions:

1. Receive public comments regarding San Dieguito Water District's 2020 Urban Water Management Plan, review and discuss the information presented, and advise staff of changes, if any, desired by the Board.
2. Adopt Resolution No. 2021-11, entitled "A Resolution of the Board of Directors of San Dieguito Water District Adopting the District's 2020 Urban Water Management Plan."
3. Adopt Ordinance No. 2021-01, entitled "An Ordinance of the San Dieguito Water District Adopting a Water Supply Shortage Response Program as the District's Water Shortage Contingency Plan and Water Conservation Regulations, Adding the Program to the Administrative Code, and Rescinding Ordinance 2015-01."
4. Adopt Resolution No. 2021-12, entitled "A Resolution of the Board of Directors of San Dieguito Water District Amending the District's 2015 Urban Water Management Plan."

STRATEGIC PLAN:

San Dieguito Water District's 2020 Urban Water Management Plan is an Environment Focus Area Strategic Plan goal.

FISCAL CONSIDERATIONS:

There are no fiscal impacts associated with the staff recommendation.

BACKGROUND:

The Urban Water Management Planning Act of 1983 requires that each urban water supplier update its Urban Water Management Plan (UWMP) every five years. The UWMP is a tool to confirm that water agencies are adequately planning to have sufficient water supplies to meet existing and future water demands under normal and extended dry periods. On June 15, 2016, the District Board of Directors (Board) adopted San Dieguito Water District's (District) 2015 UWMP. In order to comply with state law, the Board must adopt the District's 2020 UWMP and the District must submit the plan to the California Department of Water Resources by July 1, 2021.

The UWMP Act requires water agencies to prepare an UWMP to include:

- Water demands and system uses.
- Water use baselines and targets.
- Water supplies
- Water supply reliability
- Water Shortage Contingency Plan
- Demand management measures

ANALYSIS:

In June 2020, the District hired Woodard & Curran, Inc. (Woodard) to prepare the 2020 UWMP. Woodard has completed a draft of the District's 2020 UWMP that has been out for public review since April 19, 2021. The draft is available for public review on the District's website under the Engineering and Planning Documents, https://encinitasca.gov/Government/Departments/San-Dieguito-Water-District/Engineering-Planning and included in Attachment 1. On May 3, 2021, the District sent out an email blast to over 6,500 contacts noticing the Draft 2020 UWMP with the above link. This public hearing is for public comment and Board direction to accept or amend the Draft 2020 UWMP.

The District coordinated closely with the San Diego County Water Authority (SDCWA) regarding the supply and demand projections, since imported water and treated water from SDCWA are key components of the District's water supply.

The plan details the District's water supply assessments, water shortage contingency plan, recycled water program, and water conservation programs. Integral to the UWMP is the District's compliance with SB X7-7. SB X7-7 requires agencies to reduce their Gallons Per Capita per Day (GPCD) potable water usage by 20 percent by 2020. Failure to meet SB X7-7 requirements can affect an agency's eligibility for state grant and loan funding opportunities. The District's actual water use in fiscal year 2020 was 129 GPCD, which is approximately 15 percent less than its 2020 target water use of 151 GPCD. Therefore, the District is currently in compliance with SB X7-7.

On May 25, 2011, the District entered into a Regional Alliance (Alliance) with Olivenhain Municipal Water District, Vallecitos Water District, and Rincon del Diablo Municipal Water District to meet SB X7-7 requirements. Santa Fe Irrigation District was asked to participate but declined. The advantage to being in this Alliance is that the District has two opportunities to meet the required water use reduction targets, either individually or with the Alliance. Should the District not meet its individual target, but the Alliance does meet its target, then the District is considered in compliance with SB X7-7 requirements. The Alliance's 2020 target was 204 GPCD with an actual use in 2020 of 150 GPCD and is therefore in compliance with SB X7-7.

The Water Shortage Contingency Plan Crosswalk, (Attachment 2) highlights the existing four water shortage stages with the new proposed six shortage levels. The Board is considering adopting Ordinance No. 2021-01 (Attachment 4) which amends the Administration Code Article 30 to codify the Water Shortage Contingency Plan accepting the six levels of demand reduction actions. Also, the Board is considering Resolution No. 2021-12 (Attachment 5) which amends the 2015 UWMP to include an appendix which discusses reduced regional reliance on the Bay-Delta. The discussion of reduced reliance on Bay-Delta was required by state law but was not included in the 2015 UWMP guidebook. The Department of Water Resources (DWR) is requesting this update. This appendix will also be included in the 2020 UWMP.

Finally, the 2020 UWMP will be utilized to facilitate the update to the City of Encinitas Climate Action Plan as it relates to water demand reduction, decreasing reliance on imported water, and maximizing the use of recycled water.

ENVIRONMENTAL CONSIDERATIONS:

The project is categorically exempt pursuant to Section 15306, Class 6 of the California Environmental Quality Act (CEQA) related to information collection.

The project is related to Climate Action Plan Goal 3.1: Reduce Citywide Potable Water Consumption.

ATTACHMENTS:

Attachment 1 – Draft 2020 Urban Water Management Plan
Attachment 2 – Water Shortage Contingency Plan Crosswalk
Attachment 3 – Resolution No. 2021-11, 2020 Urban Water Management Plan
Attachment 4 – Ordinance No. 2021-01, Water Shortage Response Plan
Attachment 5 – Resolution No. 2021-12, Amending 2015 Urban Water Management Plan

RESOLUTION NO. 2021-11

A RESOLUTION OF THE BOARD OF DIRECTORS OF SAN DIEGUITO WATER DISTRICT ADOPTING THE DISTRICT'S 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Urban Water Management Planning Act (Water Code, Part 2.6, Section 10610 et seq.), enacted by the California Legislature during the 1983-1984 Regular Session, and as subsequently amended, mandates that every supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan and update its Urban Water Management Plan at least once every five years in years ending in five and zero; and

WHEREAS, the District is an urban supplier of water providing water to a population of approximately 38,000; and

WHEREAS, in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, the District has prepared its 2020 Urban Water Management Plan (2020 UWMP) and has undertaken certain coordination, notice, public involvement, public comment, and other procedures in relation to its 2020 UWMP; and

WHEREAS, in accordance with applicable law, including Water Code sections 10608.26 and 10642, and Government Code section 6066, a properly noticed public hearing regarding the District's 2020 UWMP was conducted by the District's Board of Directors on May 19, 2021 in order to provide members of the public and other interested entities with the opportunity to be heard in connection with the 2020 UWMP and the proposed adoption thereof;

NOW, THEREFORE, IT IS HEREBY RESOLVED, DETERMINED AND ORDERED by the Board of Directors of San Dieguito Water District as follows:

1. The District hereby adopts the 2020 Urban Water Management Plan.

2. The General Manager is hereby authorized and directed to file the 2020 Urban Water Management Plan with the California Department of Water Resources, the California State Library, and any city or county within which the District provides water supplies within thirty (30) days after this adoption date.

3. The General Manager is hereby authorized and directed to implement the components of the 2020 Urban Water Management Plan in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

PASSED AND ADOPTED at a meeting of the Board of Directors of San Dieguito Water District held on the 19th day of May, 2021.

Tony Kranz, President

ATTEST:

Pamela Antil, Secretary to the Board

APPROVED AS TO FORM:

Leslie E. Devaney, General Counsel

CERTIFICATION: I, Kathy Hollywood, Board Clerk of the San Dieguito Water District, do hereby certify under penalty of perjury that the foregoing Resolution was duly adopted at a regular meeting of the Board on the 19th day of May, 2021 by the following vote:

AYES:	Blakespear, Hinze, Kranz, Lyndes, Mosca
NOES:	None
ABSENT:	None
ABSTAIN:	None

Kathy Hollywood, Board Clerk

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Appendix N: Adopted Resolutions for District's 2020 Urban Water Management Plan, Water Shortage Contingency Plan, and 2015 Addendum on Delta Reliance

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ORDINANCE NO. 2021-01

AN ORDINANCE OF THE SAN DIEGUITO WATER DISTRICT ADOPTING A WATER SUPPLY SHORTAGE RESPONSE PROGRAM AS THE DISTRICT'S WATER SHORTAGE CONTINGENCY PLAN AND WATER CONSERVATION REGULATIONS, ADDING THE PROGRAM TO THE ADMINISTRATIVE CODE, AND RESCINDING ORDINANCE 2015-01

WHEREAS, the San Dieguito Water District ("District") is a California irrigation district organized and operating according to California law; and

WHEREAS, periodic droughts are a historic fact in the State of California; and

WHEREAS, the District derives a portion of the water that it delivers to its customers from waters imported from outside District boundaries; and

WHEREAS, the quality and quantity of imported water is under the control of other agencies, and may be subject to conditions beyond the control of those other agencies or the District; and

WHEREAS, California Constitution Article X, section 2 and California Water Code section 100 provide that because of conditions prevailing in the state of California ("State"), it is the declared policy of the State that the general welfare requires that the water resources of the State shall be put to beneficial use to the fullest extent of which they are capable, the waste or unreasonable use of water shall be prevented, and the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare; and

WHEREAS, pursuant to California Water Code section 106, it is the declared policy of the State that the use of water for domestic use is the highest use of water and that the next highest use is for irrigation; and

WHEREAS, pursuant to California Water Code section 375–378, the District is authorized to adopt and enforce a water conservation program to reduce the quantity of water used by persons within its jurisdiction for the purpose of conserving the water supplies of the District; and

WHEREAS, California, including San Diego County, experienced significant dry year conditions in 2012-2017, which led local water agencies to declare water shortage conditions that triggered drought actions; and

WHEREAS, beginning on January 17, 2014, with the Governor Brown proclaimed condition of statewide drought, the District experienced a direct impact on the reliability of available water supplies. The District's reliability was increased through customer curtailment due to demand management measures implemented; and

WHEREAS, following the end of the statewide drought conditions, the California Legislature amended the Urban Water Management Planning Act in 2018 to include additional

water shortage planning requirements. Water Code Section 10632 now mandates the adoption of Water Shortage Contingency Plans ("WSCP") with prescribed elements, and the District must describe in its WSCP the legal authorities that empower the District to enforce shortage response actions identified in its WSCP; and

WHEREAS, because of the prevailing conditions in the State and the declared policy of the State, the District hereby finds and determines that it is necessary and appropriate for the District to amend, adopt, implement, and enforce a water conservation program to reduce the quantity of water used by consumers within the District to ensure that there is sufficient water for human consumption, sanitation, and fire protection and to ensure the District can implement and enforce the shortage response actions specified in its WSCP; and

WHEREAS, pursuant to California Water Code section 350, the Board of Directors is authorized to declare a water shortage emergency to prevail within its jurisdiction when it finds and determines that the District will not be able to or cannot satisfy the ordinary demands and requirements of water consumers without depleting the water supply of the District to the extent that there would be insufficient water for human consumption, sanitation, and fire protection, and as more fully set forth in this chapter, based upon the occurrence of one or more of the following conditions or circumstances:

A. A general water supply shortage due to increased demand and/or limited supplies.

B. Distribution or storage facilities of the District, or any agency supplying water to the District, become inadequate or are restricted.

C. A major failure of the supply, storage, and/or distribution facilities of the District or any agency supplying water to the District.

D. Contamination of the water supply, storage, and/or distribution facilities of the District or any agency supplying water to the District.

E. Act of nature which in the opinion of the District constitute an emergency situation or which require special water conservation actions.

WHEREAS, in the event the District determines that it is necessary to declare that a water shortage emergency exists, this Ordinance authorizes the District to implement certain shortage response measures and a water conservation and regulatory program to regulate water consumption activities within the District and ensure that the water delivered in the District is put to beneficial use for the greatest public benefit, with particular regard to domestic use, including human consumption, sanitation, and fire protection, and that the waste or unreasonable use of water is prevented; and

WHEREAS, the District is authorized to prescribe and define by ordinance restrictions, prohibitions, and exclusions for the use of water during a threatened or existing water shortage and adopt and enforce a water conservation and regulatory program to: (i) prohibit the waste of District water or the use of District water during such period; (ii) prohibit use of water during such periods for specific uses that the District may from time to time find nonessential; and (iii) reduce and

restrict the quantity of water used by those persons within the District for the purpose of conserving the water supplies of the District; and

WHEREAS, the District hereby finds and determines that the District shall: (i) implement water conservation and water shortage response measures; (ii) regulate the water consumption activities of persons within the District for the purposes of conserving and protecting the District's water supplies, reducing the quantity of water consumed, and deterring and preventing the waste or unreasonable use or unreasonable method of use of valuable water resources; and (iii) establish and collect regulatory fees and impose administrative penalties as set forth herein to accomplish these purposes and/or recover the costs of the District's water conservation and regulatory program; and

WHEREAS, the District hereby finds and determines that it is desirable to codify the rules and regulations governing its actions, and the actions of persons using and consuming water within the District, particularly during declared water shortages and water shortage emergencies, to protect the general welfare and the District's water supplies, and to reduce water consumption in accordance with the declared policies and laws of the State; and

WHEREAS, the District desires to adopt a Water Shortage Response Program in the form attached hereto as Exhibit A, and by this reference, incorporated herein, and thereby desires to establish standards and procedures to enable implementation and enforcement of local water shortage contingency measures. These measures align with the California Water Code Section 353 which specifies that "when the governing body has so determined and declared the existence of an emergency condition of water shortage within its service area, it shall thereupon adopt such regulations and restrictions on the delivery of water and the consumption within said area of water supplied for public use as will in the sound discretion of such governing body conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection."

NOW THEREFORE, it is hereby ordained by the Board of Directors of the San Dieguito Water District as follows:

Section 1. Ordinance No. 2015-1 is hereby rescinded and replaced with this Ordinance.

Section 2. The District hereby adopts the Water Supply Shortage Response Program in the form attached hereto as Exhibit A, and by this reference, such Water Supply Shortage Response Program is incorporated as if fully set forth herein. This Ordinance, including the Water Supply Shortage Response Program attached hereto and incorporated herein, shall serve as the District's Water Shortage Contingency Plan and as the District's Water Conservation Ordinance in accordance with section 375 *et seq.* of the California Water Code.

Section 3. Article 30 of the District's Administrative Code is hereby amended in its entirety and replaced with the attached Water Supply Shortage Response Program in the form attached hereto as Exhibit A.

Section 4. The adoption of this Ordinance is not subject to the requirements of CEQA, or alternative, is exempt from CEQA. As only water conservation would result from the

implementation of the Ordinance's provisions, the Ordinance would not commit the District to any action that would result in any significant environmental effects. As a result, per State CEQA Guidelines §15378, the Ordinance does not constitute a project subject to requirements of CEQA. Alternatively, the adoption of this Ordinance is exempt from CEQA under State CEQA Guidelines, §15061 (b)(3) and §15308 because CEQA only applies to projects that have the potential for causing a significant effect on the environment and it can be seen with certainty that there is no possibility that the Ordinance will have a significant effect on the environment, and because the Ordinance would result in the conservation of water, a limited and currently scare resource, and would, therefore, have a beneficial effect on the environment. On this basis, and the on the basis of the information contained in the whole of the administrative record, the adoption of this Ordinance requires no further analysis under CEQA.

Section 5. If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without invalid provision or application, and to this end the provisions of this ordinance are severable. The Board hereby declares that it would have adopted this Ordinance irrespective of the invalidity of any particular portion thereof.

Section 6. This Ordinance shall become effective immediately upon adoption.

PASSED AND ADOPTED at a meeting of the Board of Directors of San Dieguito Water District held on the 19th day of May, 2021.

Tony Kranz, President

ATTEST:

Pamela Antil, Secretary to the Board

APPROVED AS TO FORM:

Leslie E. Devaney, General Counsel

CERTIFICATION: I, Kathy Hollywood, Board Clerk of the San Dieguito Water District, do hereby certify under penalty of perjury that the foregoing Resolution was duly adopted at a regular meeting of the Board on the 19th day of May, 2021 by the following vote:

AYES: Blakespear, Hinze, Kranz, Lyndes, Mosca
NOES: None
ABSENT: None
ABSTAIN: None

Kathy Hollywood, Board Clerk

RESOLUTION NO. 2021-12

A RESOLUTION OF THE BOARD OF DIRECTORS OF SAN DIEGUITO WATER DISTRICT AMENDING THE DISTRICT'S 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Urban Water Management Planning Act (Water Code, Part 2.6, Section 10610 et seq.), enacted by the California Legislature during the 1983-1984 Regular Session, and as subsequently amended, mandates that every supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan and update its Urban Water Management Plan at least once every five years in years ending in five and zero; and

WHEREAS, the District is an urban supplier of water providing water to a population of approximately 38,000; and

WHEREAS, in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, the District has prepared its 2015 Urban Water Management Plan (2015 UWMP) and has undertaken certain coordination, notice, public involvement, public comment, and other procedures in relation to its 2015 UWMP; and

WHEREAS, in accordance with applicable law, including Water Code sections 10608.26 and 10642, and Government Code section 6066, a properly noticed public hearing regarding the District's 2015 UWMP was conducted by the District's Board of Directors on June 15, 2016 in order to provide members of the public and other interested entities with the opportunity to be heard in connection with the 2015 UWMP and the proposed adoption thereof; and

WHEREAS, in accordance with applicable law, under 23 CCR section 5003, section (C)(1)(C) requires the District to include in the UWMP a provision to include an analysis to discuss reduced regional reliance on the Bay-Delta; and

WHEREAS, in accordance with applicable law, including Water Code sections 10608.26 and 10642, and Government Code section 6066, a properly noticed public hearing regarding the amending of the District's 2015 UWMP was conducted by the District's Board of Directors on May 19, 2021 in order to provide members of the public and other interested entities with the opportunity to be heard in connection with the 2015 UWMP and the proposed adoption thereof;

NOW, THEREFORE, IT IS HEREBY RESOLVED, DETERMINED AND ORDERED by the Board of Directors of San Dieguito Water District as follows:

1. Amends the District's 2015 Urban Water Management Plan by including an Appendix, Reduce Reliance on the Bay-Delta.

2. The General Manager is hereby authorized and directed to file the amended 2015 Urban Water Management Plan with the California Department of Water Resources, the California State Library, and any city or county within which the District provides water supplies within thirty (30) days after this adoption date.

3. The General Manager is hereby authorized and directed to implement the components of the 2015 Urban Water Management Plan in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

Appendix N - Adopted Resolution for District's Addendum to the 2015 UWMP on Delta Reliance

PASSED AND ADOPTED at a meeting of the Board of Directors of San Dieguito Water District held on May 19, 2021.

Tony Kranz, President

ATTEST:

Pamela Antil, Secretary to the Board

APPROVED AS TO FORM:

Leslie E. Devaney, General Counsel

CERTIFICATION: I, Kathy Hollywood, Board Clerk of the San Dieguito Water District, do hereby certify under penalty of perjury that the foregoing Resolution was duly adopted at a regular meeting of the Board on the 19th day of May, 2021 by the following vote:

AYES:	Blakespear, Hinze, Kranz, Lyndes, Mosca
NOES:	None
ABSENT:	None
ABSTAIN:	None

Kathy Hollywood, Board Clerk

Appendix O: District Energy Intensity Calculations

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Appendix O - Energy Intensity Calculations

Urban Water Supplier: *San Dieguito Water District*

Water Delivery Product (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1A: Recommended Energy Reporting - Water Supply Process Approach

Enter Start Date for Reporting Period: 7/1/2019

End Date: 6/29/2020

☐ Is upstream embedded in the values reported?

	Water Volume Units Used	Urban Water Supplier Operational Control							
		Water Management Process						Non-Consequential Hydropower (if applicable)	
		Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process	AF	*0*	*2.21*	*0*	*0*	*0*	*0*	*0*	*0*
Energy Consumed (kWh)	*N/A*	*0*	*2883*	*0*	*0*	*0*	*2883*		*2883*
Energy Intensity (kWh/vol.)	*N/A*	*0.0*	*1304.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Combination of Estimates and Metered Data

Data Quality Narrative:

Energy data is metered billing data provided by San Diego Gas and Electric (SDG&E). The District has two electrical meters at its emergency pump station, likely one for the pumps and one for the control room; however, energy consumption data reported here includes data from both meters because the District could not readily and easily determine which meter serves which facilities. Consumption data were estimated based on the following: (1) the emergency pump station has three 75 horsepower (HP) pumps, (2) the District runs these pumps for five minutes each about once a week, and (3) the pumps run at 1000 gallons per minute.

1,000 gal/per minute x 5 minutes = 5,000 gallons
5,000 gallons x 3 pumps = 15,000 gallons per run
In a year, assume pumps ran 48 times: 15,000 gallons x 48 runs = 720,000 gallons or 0.72 MG = 2.21 AF.

Narrative:

The District's entire distribution system is gravity-fed with the exception of one emergency pump station that was built to distribute water to refill a reservoir in the District's highest pressure zone (520 feet). This emergency pump station has never been used for supply since it was built in 1998; however, the District operates the three pumps at this station for approximately five minutes per week to ensure they are running properly. After each run cycle, the pumped waters are returned to the system.

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Appendix P: Department of Water Resources 2020 Urban Water Management Plan Checklist and Tables

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UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Chapter 1
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Executive Summary
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 2.5
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 2.5.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3.1
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.4
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.4.1

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3.4, Section 5.2
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3.4.2
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2
x		Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.3
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 4.2
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4.2
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4.3
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.4
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 7.4

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.7
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	N/A (no adjustments)
x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.5

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5.5, Appendix F
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 6.3, Section 6.4
x	x	Section 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.*	System Supplies	Section 7.3, Section 7.4
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 6.1, Section 6.3
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6.8

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030,2035, 2040 and optionally 2045.	System Supplies	Section 6.9
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.9
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.9
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	N/A

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	N/A
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	N/A
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	N/A
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.7
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3, Section 6.5.4

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.9
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier’s service area.	System Supplies (Recycled Water)	Section 6.5.5
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier’s service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 6.5.2

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 6.8
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 6.11, Appendix O
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1, Section 7.2
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.1, Section 7.2

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next20 years.	Water Supply Reliability Assessment	Section 7.3
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5consecutive years.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7.3, Section 7.4
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.4

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.4
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Chapter 7, Appendix J
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Chapter 8; Appendix J

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levelsshall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	N/A
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Chapter 8; Appendix J

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Chapter 8; Appendix J
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Chapter 8; Appendix J

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Chapter 8; Appendix J

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Chapter 8; Appendix J
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	Section 10.4
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Chapter 9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 10.2
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Sections 10.2.2,10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public	Plan Adoption, Submittal, and Implementation	Section 10.2.2, Section 10.3

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
				hearing about the plan and contingency plan.		
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 10.2.1
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10.4

Appendix P - DWR 2020 UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	N/A
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
CA3710021	SAN DIEGUITO WD	11,913	5,277
	TOTAL	11,913	5,277
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☑	Water Supplier is also a member of a Regional Alliance	Olivenhain Regional Alliance
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES: The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance.			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☐	UWMP Tables are in calendar years
☑	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
7/1	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: Fiscal year reporting from 7/1/2019 to 6/30/2020. Units of measure are in acre-feet.	

Submittal Table 2-4 Retail: Water Supplier Information Exchange
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
San Diego County Water Authority (SDCWA)
NOTES:

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	37,856	39,208	39,653	39,800	40,240	41,246
NOTES: 2020 population calculated using DWR's Population Tool. 2025-2045 populations based on SANDAG Series 14 Growth Forecast (Version 17).						

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Single Family		Drinking Water	2,994
Multi-Family		Drinking Water	1,102
Commercial		Drinking Water	501
Institutional/Governmental		Drinking Water	166
Landscape		Drinking Water	328
Agricultural irrigation		Drinking Water	186
Losses		Drinking Water	186
		TOTAL	5,463

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*
[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Volume does not include recycled water demands.

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		3,125	3,324	3,373	3,462	3,578
Multi-Family		1,173	1,249	1,267	1,301	1,345
Commercial		536	571	579	595	615
Landscape		167	178	181	186	192
Institutional/Governmental		390	416	422	433	447
Agricultural irrigation		201	201	201	201	201
Losses		204	217	220	226	233
TOTAL		5,796	6,156	6,243	6,404	6,611

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Projected water use does not include recycled water demands.

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	5,463	5,796	6,156	6,243	6,404	6,611
Recycled Water Demand[1] *From Table 6-4*	642	700	700	700	700	700
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	6,105	6,496	6,856	6,943	7,104	7,311

[1] Recycled water demand fields will be blank until Table 6-4 is complete *[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
07/2016	N/A
07/2017	290
07/2018	362
07/2019	N/A
07/2020	186
[1] *Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* [2] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Section 4.2 Water Uses by Sector
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 5-1 Baselines and Targets Summary
From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1996*	*2005*	*189*	*151*
5 Year	*2004*	*2008*	*177*	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 5-2: 2020 Compliance **From** **SB X7-7 2020 Compliance Form** *Retail Supplier or Regional Alliance Only*				
2020 GPCD				
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*	2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
129	*0*	*N/A*	*151*	*Y*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
☑	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
TOTAL		0	0	0	0	0
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2020 service area covered by wastewater collection system *(optional)*					
	Percentage of 2020 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Cardiff Sanitary Division (CSD)	Estimated	889	San Elijo Joint Powers Authority	San Elijo Water Reclamation	Yes	No
Encinitas Sanitary Division (ESD)	Estimated	1,064	Encina Wastewater Authority (EWA)	Encina Water Pollution Control Facility (EWPCF)	No	Yes
Leucadia Wastewater District (LWWD)	Estimated	1,077	Encina Wastewater Authority (EWA)	Encina Water Pollution Control Facility (EWPCF)	No	Yes
Total Wastewater Collected from Service Area in 2020:		3,030				
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.**						
NOTES:						

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020

☐ **No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)* [2]	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area? *Drop down list*	Treatment Level *Drop down list*	2020 volumes [1]				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
San Elijo Water Reclamation Facility (SEWRF)	Cardiff By the Sea	Within the District's service area, a beach community located in the City of Encinitas		Ocean outfall	Yes	Tertiary	3,320	1,645	642	859	N/A
Encina Water Pollution Control Facility (EWPCF)	City of Carlsbad	North adjacent to the City of Encinitas		Ocean outfall	Yes	Secondary, Undisinfected	11,647	11,340	0	7,384	N/A
						Total	14,967	12,985	642	8,243	0

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.
[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

NOTES: 1. In 2020, an additional 171 AF of recycled water was used at the SEWRF for the in-plant treatment process washdown. 2. In-stream flow permit requirement is not applicable to the SEWRF and EWPCF.

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

☐ Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Supplier Producing (Treating) the Recycled Water:	San Elijo Joint Powers Authority
Name of Supplier Operating the Recycled Water Distribution System:	San Elijo Joint Powers Authority
Supplemental Water Added in 2020 (volume) *Include units*	2.63 AF
Source of 2020 Supplemental Water	San Dieguito Water District

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020 [1]	2025 [1]	2030 [1]	2035 [1]	2040 [1]	2045 [1] (opt)
Agricultural irrigation		Greenhouses	N/A							
Landscape irrigation (exc golf courses)	Medians, City parks, schools, HOAs	Business parks, HOAs, multi-family housing	90	Tertiary	368	400	400	400	400	400
Golf course irrigation	Encinitas Ranch Golf Course	N/A	N/A	Tertiary	274	300	300	300	300	300
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	642	700	700	700	700	700
				2020 Internal Reuse						

[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: 1. Potential Agricultural recycled water use is incorporated into 90 AF shown for landscape irrigation. 2. In 2020, an additional 171 AF of recycled water was used at the SEWRF for the in-plant treatment process washdown. The SEWRF typically utilizes approximately 100 AFY of recycled water for in-plant processes.

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual

☐	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.

Beneficial Use Type	2015 Projection for 2020 [1]	2020 Actual Use[1]
Insert additional rows as needed.		
Agricultural irrigation		
Landscape irrigation (exc golf courses)	430	368
Golf course irrigation	300	274
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	730	642

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

NOTE: In 2020, an additional 171 AF of recycled water was used at the SEWRF for the in-plant treatment process washdown. The SEWRF typically utilizes approximately 100 AFY of recycled water for in-plant processes.

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
Section 6.1.5	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Add additional rows as needed			
Incentives for Recycled Water Customers	Offer incentives such as low recycled water price, no capacity fees on recycled water meters, low-interest loans, etc. to attract more recycled water customers	2020-2035	50
		Total	50
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☑	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
Section 6.8	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						

NOTES: A conceptual indirect potable reuse (IPR) project [North County One Water Program] is being explored and may provide up to 2,000 AFY of additional local water supply to the District beginning in 2035, thereby reducing the District's annual demands on SDCWA by approximately 2,000 AFY.

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Purchased or Imported Water		3,127	Drinking Water	
Supply from Storage		2,555	Drinking Water	
Recycled Water		642	Recycled Water	
	Total	6,324		0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES:				

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water	Purchased from SDCWA	3,661		4,021		3,809		3,970		4,177	
Supply from Storage	Lake Hodges	2,135		2,135		2,434		2,434		2,434	
Recycled Water	Purchased from SEJPA	700		700		700		700		700	
	Total	6,496	0	6,856	0	6,943	0	7,104	0	7,311	0

***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: A conceptual indirect potable reuse (IPR) project [North County One Water Program] is being explored and may provide up to 2,000 AFY of additional local water supply to the District beginning in 2035, thereby reducing the District's annual demands on SDCWA by approximately 2,000 AFY.

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	**Available Supplies if Year Type Repeats**	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	**% of Average Supply**
Average Year	1986-2018		100%
Single-Dry Year	2015		107%
Consecutive Dry Years 1st Year	2011		107%
Consecutive Dry Years 2nd Year	2012		108%
Consecutive Dry Years 3rd Year	2013		108%
Consecutive Dry Years 4th Year	2014		108%
Consecutive Dry Years 5th Year	2015		109%

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

***Units of measure (AF, CCF, MG**) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals (*autofill from Table 6-9)*	6,496	6,856	6,943	7,104	7,311
Demand totals *(autofill from Table 4-3)*	6,496	6,856	6,943	7,104	7,311
Difference	0	0	0	0	0
NOTES:					

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	6,938	7,322	7,415	7,586	7,808
Demand totals*	6,938	7322	7,415	7,586	7,808
Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES:					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	6,938	7,322	7,415	7,586	7,808
	Demand totals	6,938	7,322	7,415	7,586	7,808
	Difference	0	0	0	0	0
Second year	Supply totals	6,995	7,382	7,476	7,648	7,872
	Demand totals	6,995	7,382	7,476	7,648	7,872
	Difference	0	0	0	0	0
Third year	Supply totals	7,019	7,408	7,502	7,675	7,900
	Demand totals	7,019	7,408	7,502	7,675	7,900
	Difference	0	0	0	0	0
Fourth year	Supply totals	7,045	7,436	7,530	7,704	7,929
	Demand totals	7,045	7,436	7,530	7,704	7,929
	Difference	0	0	0	0	0
Fifth year	Supply totals	7,055	7,446	7,540	7,714	7,940
	Demand totals	7,055	7,446	7,540	7,714	7,940
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)	
2021	**Total**
Total Water Use	6,593
Total Supplies	6,593
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	6,838
Total Supplies	6,838
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	7,082
Total Supplies	7,082
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	7,326
Total Supplies	7,326
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	7,631
Total Supplies	7,631
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0%

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
1	Up to 10%	Includes voluntary water shortage actions to achieve demand reductions, such as water before 10 a.m. and after 6 p.m. for residential, commercial, and nursery/commercial growers.
2	Up to 20%	Mandates the voluntary actions included under Level 1 and includes additional measures focused on reducing outdoor water use such as limiting landscape irrigation for residential and commercial properties to 3 assigned days per week and imposing time limits for lawn watering with sprinklers.
3	Up to 30%	Includes mandatory Level 1 and 2 actions and additional actions focused on reducing outdoor water use such as stop operating ornamental fountains unless recycled water is used and further limiting the number of assigned days per week for residential and commercial landscape irrigation to 2 days
4	Up to 40%	Includes mandatory Level 1, 2, and 3 actions and additional water shortage actions such as preventing filling/refilling of ornamental lakes or ponds (except to sustain aquatic life).
5	Up to 50%	Includes mandatory Level 1, 2, 3, and 4 actions and additional actions focused on reducing outdoor water use such as prohibiting all landscape irrigation (with exceptions for commercial growers, nurseries, and other listed uses).
6	>50%	Includes mandatory Level 1, 2, 3, 4, and 5 actions and additional actions focused on reducing outdoor water use such as expanding prohibitions on all landscape irrigation by removing several exclusions permitted under Level 5.

NOTES:

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 8-2: Demand Reduction Actions

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
1	Other - Prohibit use of potable water for washing hard surfaces	1%		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0.1%		No
1	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Wash vehicles with hand-held hose / shut-off nozzle and bucket or at a commercial site with recirculating water	No
1	Landscape - Limit landscape irrigation to specific times	3%	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Nursery and commercial growers irrigate before 10 a.m. and after 6 p.m. only.	No
1	Other	1%	Vehicles must be washed using a bucket, hand-held hose with positive shut-off nozzle, or at a commercial site that recirculated water.	No
1	CII - Restaurants may only serve water upon request	0.1%		No
1	CII - Lodging establishment must offer opt out of linen service	0.1%		No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	Repair all leaks within 5 days of detection or notification by the District	No
1	Other - Prohibit use of potable water for construction and dust control	< 0.1%	When recycled/non-potable water is available	No
1	Other	Variable	Comply with any mandatory regulations established by any State agency governing the use of water	No
1	Water Features - Restrict water use for decorative water features, such as fountains	1%	Use re-circulated water or recycled water to operate ornamental fountains.	No
1	Expand public information campaign	1%		No
1	Implement or modify drought rate structure or surcharge	2%	May implement drought rate structure	No
2	Other - Prohibit use of potable water for washing hard surfaces	1%		Yes
2	Landscape - Restrict or prohibit runoff from landscape irrigation	0.1%		Yes
2	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Wash vehicles with hand-held hose / shut-off nozzle and bucket or at a commercial site with recirculating water	Yes
2	Landscape - Limit landscape irrigation to specific times	3%	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Nursery and commercial growers irrigate before 10 a.m. and after 6 p.m. only.	Yes
2	Other	1%	Vehicles must be washed using a bucket, hand-held hose with positive shut-off nozzle, or at a commercial site that recirculated water.	Yes
2	CII - Restaurants may only serve water upon request	0.1%		Yes
2	CII - Lodging establishment must offer opt out of linen service	0.1%		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	Repair all leaks within 72 hours of detection or notification by the District	Yes
2	Other - Prohibit use of potable water for construction and dust control	< 0.1%	When recycled/non-potable water is available	Yes
2	Other	Variable	Comply with any mandatory regulations established by any State agency governing the use of water	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop operation unless re-circulated or recycled water is used.	Yes
2	Expand public information campaign	5%		Yes
2	Implement or modify drought rate structure or surcharge	2%	May implement drought rate structure	Yes
2	Landscape - Limit landscape irrigation to specific days	8%	No more than 3 assigned days per week	Yes
2	Landscape - Other landscape restriction or prohibition	3%	Limit watering using sprinklers to no more than 10 minutes per watering station per assigned day.	Yes
3	Landscape - Limit landscape irrigation to specific days	18%	No more than 2 assigned days per week (no more than once per week November to May)	Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	2%	Repair all leaks within 48 hours of detection or notification by the District.	Yes
3	Other	Variable	Suspend considerations of annexations to the service area.	Yes
3	Other	Variable	May establish a water allocation policy	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop operation unless recycled water is used.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	1%	Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems	Yes
4	Water Features - Restrict water use for decorative water features, such as fountains	1%	Stop filling or refilling ornamental lakes or ponds, except to the extent needed to sustain aquatic life.	Yes
4	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspend new potable water services and new temporary and permanent meters unless the District provides a program to offset new potable water demands.	Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	4%	Repair all leaks within 24 hours of detection or notification by the District	Yes
5	Landscape - Prohibit all landscape irrigation	26%	With the exception of crops and landscape products of commercial growers and nurseries and other noted exceptions (trees and shrubs watered by bucket / hand-held hose / positive shut-off nozzle / low-volume non-spray irrigation, fire protection, erosion control, rare or essential plant materials, public parks / day care centers / school grounds / cemeteries / golf course greens not exceeding (2) days per week, livestock water, public works projects, and actively irrigated environmental mitigation projects).	Yes
6	Landscape - Prohibit all landscape irrigation	30%	With the exception of crops and landscape products of commercial growers and nurseries and other noted exceptions (fire protection, erosion control, rare or essential plant materials, livestock water, public works projects, and actively irrigated environmental mitigation projects	Yes
6	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspend new potable water services and new temporary and permanent meters.	Yes

NOTES: Mandatory water shortage restrictions enforced in previous stages also apply to the current stage unless the current stage includes an equivalent action to reflect stricter measures, in which case the stricter measure would apply.

Appendix P - DWR 2020 UWMP Required Tables

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
All Levels	Increase Water Waste Patrols	5%	Water Waste Monitoring and/or Enforcement
All Levels	Expand Public Information Campaign	5%	
All Levels	Offer Water Use Surveys	Variable	
All Levels	Provide Rebates on Plumbing Fixtures and Devices	Variable	
All Levels	Provide Rebates for Landscape Irrigation Efficiency	Variable	
All Levels	Provide Rebates for Turf Replacement	Variable	
All Levels	Decrease Line Flushing	Variable	
All Levels	Reduce System Water Loss	< 1%	District's water losses are already very good compared to the water industry average (approximately 3% of total demand)
Level 2 – 6	Implement or Modify Drought Rate Structure or Surcharge	2%	May implement drought rates.
Levels 2 – 6	Other	5%	Customer billing inserts describing water shortage response actions.
Levels 3 – 6	Other	Variable	The District may establish a water allocation for any property it serves.
Levels 3 – 6	Other	Variable	The District may suspend consideration of annexations to its service area.
Levels 4 – 6	Moratorium or Net Zero Demand Increase on New Connections	Variable	Suspends new potable water services and new temporary and permanent meters unless the District provides a program to offset new potable water demands (this exception does not apply to Level 6).
NOTES:			

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
City of Encinitas	Yes	Yes
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
San Diego County	Yes	Yes

NOTES: 60 Day Notices and Notice of Public Hearing were also sent to San Diego County Water Authority, San Elijo JPA, Santa Fe Irrigation District, Olivenhain Municipal Water District, Vallecitos Water District, and Rincon del Diablo Municipal Water District.

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